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The Nebraska Medical Journal

January, 1976

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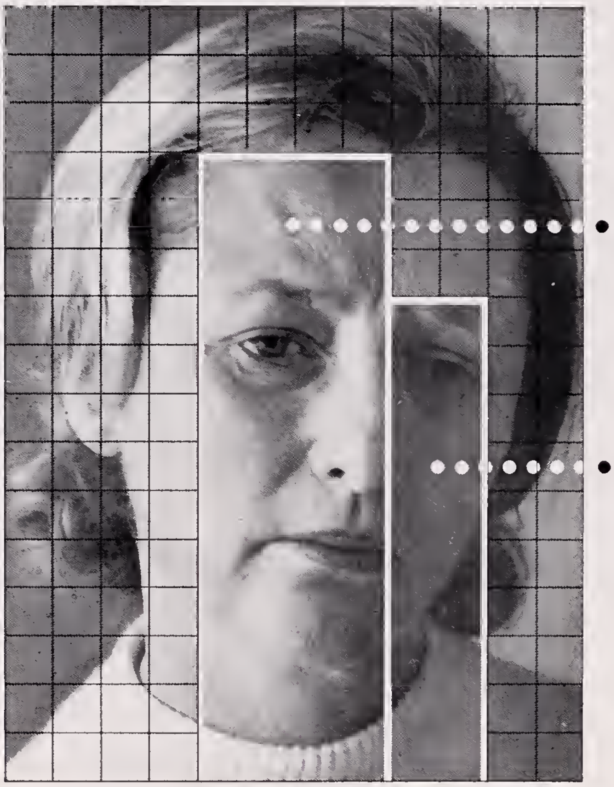
Predominant psychoneurotic anxiety
Associated depressive symptoms

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful

respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as the excessive anxiety is relieved, the depressive symptoms associated with it are also often relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.

Valium® (diazepam) ⓘⓥ

2-mg, 5-mg, 10-mg scored tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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The Nebraska Medical Journal

EDITOR-FRANK COLE, M.D., 1845 "F" St., Apt. 1, Lincoln 68508 JANUARY 1976 VOL. 61, NO. 1
PHONE 471-5016

EDITORIALS —

On The Average 1
I Just Think So 1
The Will To Fail 2
On Obscenity 2
Not That We Die 3

ORIGINAL ARTICLES —

Physician's Awareness and Attitudes Toward the Retarded, Part II 4
N. Karen Kelly, M.A.
Frank J. Menolascino, M.D.

Angina Pectoris Prophylaxis 7
James R. Brown, M.D.

Intramural Pseudodiverticulosis of the Esophagus 9
Bruce E. Fee, M.D.
Allen D. Dvorak, M.D.

Hepatic Coma: Theory and Therapy, Part II 13
Michael F. Sorrell, M.D.
Anthony J. Barak, Ph.D.

Silver Anniversary 16
Michael Crofoot, M.D., F.A.A.P.

SPECIAL ARTICLE —

My 50 Years of Medical Learning 19
Charles R. Williams, M.D.

FEATURES —

President's Page 22
The Auxiliary 24
Medicinews 25
Welcome New Members 28

BETWEEN CASES 28

NEBRASKA —

In Memoriam 30
Dr. Harley J. Hotz
State Organizations 14A
Our Medical Schools 30

AROUND THE WORLD —

The Letter Box 31
Books Received 31
Picture Gallery 32

I REMEMBER —

The Stopped Heart 36

THE OTHER STATES —

Coming Meetings 37
WashingtoNotes 38
National Organizations 10A

DOWN MEMORY LANE 40

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Illustrations should be numbered and their locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be black (India ink) on pure white. Photographs should be on glossy paper and a minimum of about 5 by 7 in. in size. A legend should be provided for each illustration and, preferably, attached to it.

Manuscripts (original, not a carbon) should be sent directly to the Editor at the Journal's address.

Letters to the Editor submitted for publication should be prepared as above, and must carry the notation: To be Published.

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WashingtoNotes . . .

School, residency, licensure, relicensing.

Federal controls dictating where medical graduates practice, rationing of residencies, and federal licensure and relicensure of physicians have been strongly opposed by the AMA.

Tom Nesbitt, M.D., speaker of the AMA House of Delegates told the Senate Health Subcommittee headed by Sen. Edward Kennedy (D-Mass.) that the AMA supports continued capitation and other aid for medical shcools, but provisions requiring students to repay the government in money or in shortage area service in return for the capitation aid are "coercive and unprecedented."

The Senate Subcommittee has finished hearings on health manpower legislation and is expected to draft legislation shortly. The House last fall approved a health manpower bill extending federal aid for medical schools but imposing the compulsory payback on all students. A provision mandating allocation of residencies, however, was defeated on the House floor.

Dr. Nesbitt told Kennedy's Subcommittee that federal scholarships should continue, not only those tied to service in the Public Health Service and National Health Service Corps, but scholarships with no strings attached for students in severe financial need from the socioeconomic disadvantaged. Funds for student loans also are needed, he said.

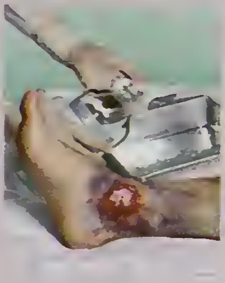
The number of residency positions is declining at the same time the number of medical school graduates is increasing, Dr. Nesbitt noted. "It is a particularly inappropriate time to establish arbitrary legislative ceilings on total residency positions."

The goal of such allocations is to increase the number of "primary care" physicians. However, Dr. Nesbitt pointed out that last year 58 percent of graduate students entered "primary care" specialties, more than the 50 percent goal set by the AMA previously. What Congress is seeking is already being accomplished without legislation, he said.

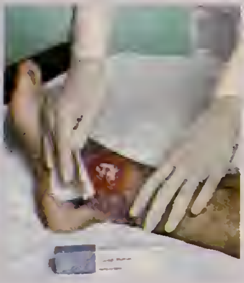
adjunctive therapy for wound debridement

HELPS TO REMOVE:
- Necrotic Tissue and Associated Odor

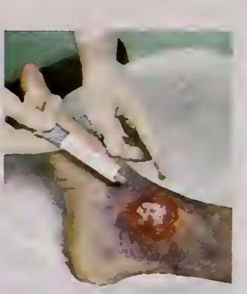
HELPS PREPARE WOUND FOR:
- Granulation/Healing
- Granulation/Grafting



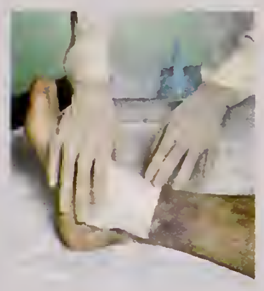
CLEANSE WOUND
Thoroughly cleanse and irrigate wound area with sodium chloride or water solutions. Wound MUST be cleansed of antiseptics or heavy-metal antibacterials.



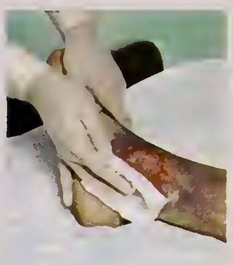
THOROUGHLY MOISTEN
Thoroughly moisten wound area either through tubbing, showering, or wet soaks (e.g., sodium chloride or water solutions).



APPLY ENZYME
Apply a layer of TRAVASE Ointment. Assure intimate contact with necrotic tissue and complete wound coverage.



APPLY MOIST DRESSING
Apply loose moist dressings (most important with dry leathery eschar).



CHANGE DRESSINGS
When changing dressing, gently wipe away the dissolved material. Repeat the procedure, including application of TRAVASE Ointment, 3 to 4 times per day for best results.

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brand of Sutilains

Travase® Ointment
brand of Sutilains

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Decubitus ulcers.
Incisional, traumatic, and pyogenic wounds.
Ulcers secondary to peripheral vascular disease.

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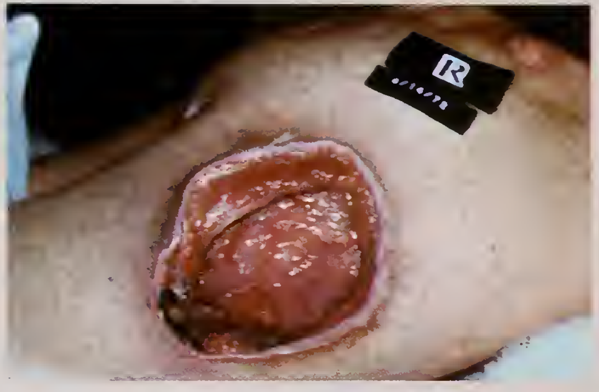
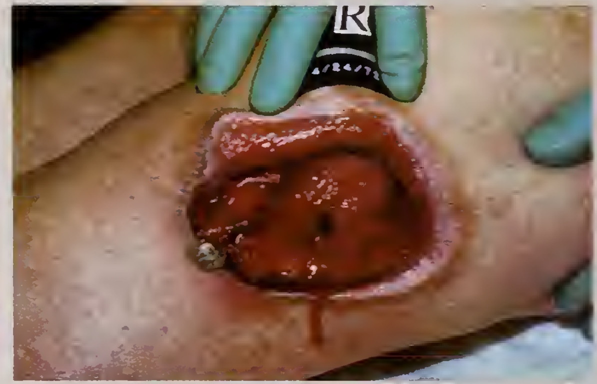
Travase® Ointment brand of Sutilains

ulcers

TERRY V. CARLE, M.D., CLINICAL INSTRUCTOR, DEPT. OF PHYS. MED. & REHAB., CRAIG REHABILITATION HOSPITAL, UNIVERSITY OF COLORADO



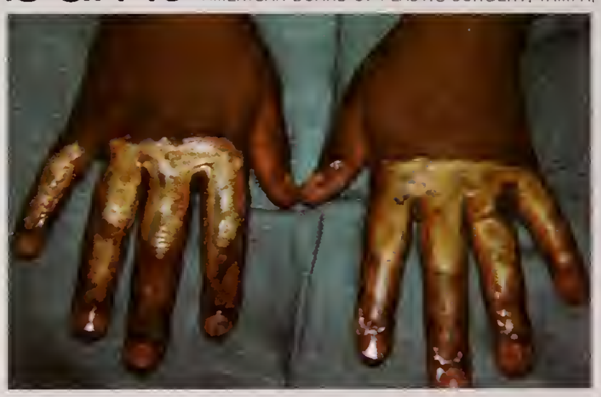
Before treatment, necrotic matter coated the inner surfaces of this decubitus ulcer.



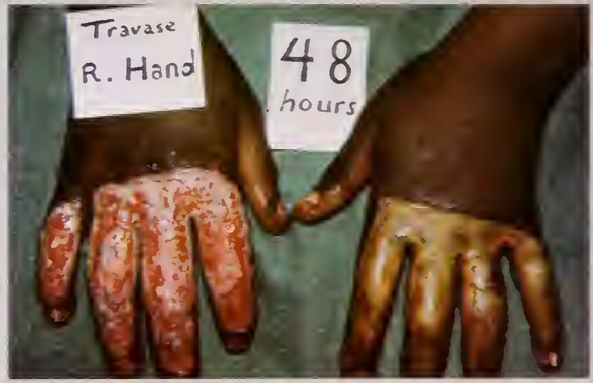
After six days of TRAVASE therapy, debridement is nearly complete and granulation evident.

burns

DALE B. DUBIN, M.D., DIPLOMATE, AMERICAN BOARD OF PLASTIC SURGERY, TAMPA, FLORIDA



Before treatment . . .



48 hours following treatment with TRAVASE Ointment on right hand; left hand is control.

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(brand of Sutilains)

Indications: For wound debridement, TRAVASE Ointment is indicated as an adjunct to established methods of wound care for biochemical debridement of the following lesions:

- Second and third degree burns,
- Decubitus ulcers,
- Incisional, traumatic, and pyogenic wounds,
- Ulcers secondary to peripheral vascular disease.

Contraindications: Application of TRAVASE Ointment is contraindicated in the following conditions:

- Wounds communicating with major body cavities,
- Wounds containing exposed major nerves or nervous tissue,
- Fungating neoplastic ulcers,
- Wounds in women of child-bearing potential—because of lack of laboratory evidence of effects of TRAVASE upon the developing fetus.

Warning: Do not permit TRAVASE Ointment to come into contact with the eyes. If contact is made, immediately rinse with copious amounts of water, preferably sterile.

Precautions: A moist environment is essential to optimal activity of the enzyme. Enzyme activity may also be impaired by certain agents (see package insert). Although there have been no reports of systemic allergic reaction in humans, studies have shown that there may be an antibody response in humans to absorbed enzyme material.

Adverse Reactions: Consist of mild, transient pain, paresthesias, bleeding and transient dermatitis. Pain usually can be controlled by administration of mild analgesics. Side effects severe enough to warrant discontinuation of therapy occasionally have occurred.

If bleeding or dermatitis occurs as a result of the application of TRAVASE Ointment, therapy should be discontinued. No systemic toxicity has been observed as a result of the topical application of TRAVASE Ointment.

DOSAGE AND ADMINISTRATION: STRICT ADHERENCE TO THE FOLLOWING IS REQUIRED FOR EFFECTIVE RESULTS OF TREATMENT:

1. Thoroughly cleanse and irrigate wound area with sodium chloride or water solutions. Wound MUST be cleansed of antiseptics or heavy-metal antibacterials which may denature enzyme or alter substrate characteristics (e.g., hexachlorophene, silver nitrate, benzalkonium chloride, nitrofurazone, etc.).
2. Thoroughly moisten wound area either through tubbing, showering, or wet soaks (e.g. sodium chloride or water solutions).
3. Apply TRAVASE Ointment in a thin layer assuring intimate contact with necrotic tissue and complete wound coverage extending ¼ to ½ inch beyond the area to be debrided.
4. Apply loose wet dressings.
5. Repeat entire procedure 3 to 4 times per day for best results.

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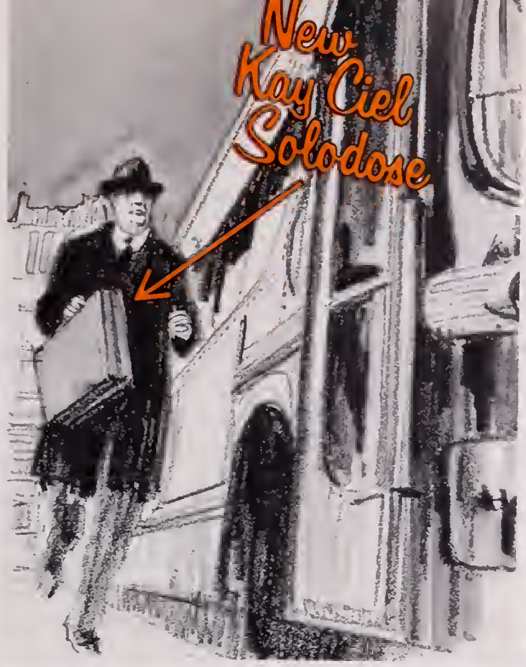

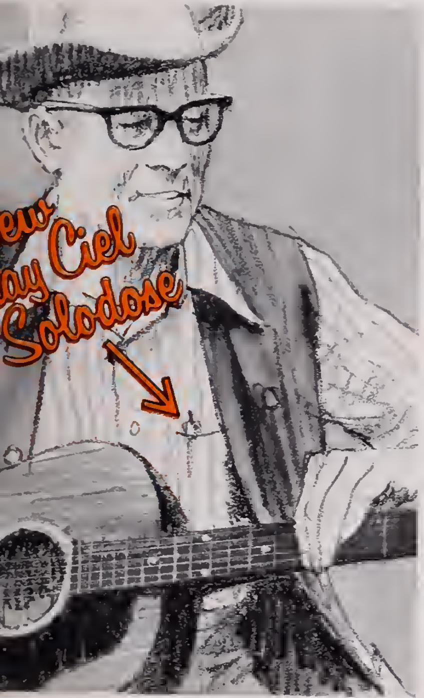

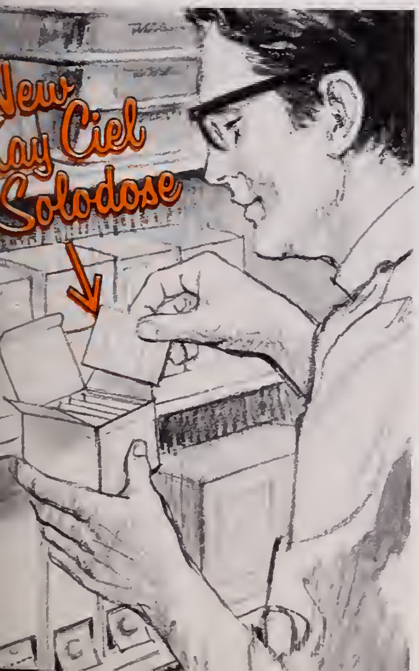

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Medicare.

The House Ways and Means Committee has approved four technical amendments to the Medicare law including one which would forestall rollbacks in some physicians' Medicare reimbursement.

An unintended effect of the HEW Department's new Medicare reimbursement index tying physicians' Medicare fees to a cost-of-living-type formula was to cause some reimbursement levels to be less this year than last despite rises in the cost of living. The Ways and Means amendment would prevent any reimbursement to be less this fiscal year than allowed previously.

The AMA had urged this change. The other amendments dealt with reimbursement for teaching hospitals, the Federal Employees Health Benefits Program, and extension of an exemption for certain nurse staffing requirements in rural hospitals.

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HMO.

The Administration has had a change of mind and now backs legislation that would bar unions from requiring members to join federally subsidized Health Maintenance Organizations (HMOs).

Referring to a provision in the HMO bill recently passed by the House, Theodore Cooper, M.D., Assistant HEW Secretary for Health, said "this amendment would assure that each individual employee would have the right to choose to participate before joining."

As the Senate Health Subcommittee headed by Sen. Edward Kennedy (D-Mass.) opened hearings on the House-passed amendments to the HMO law, Dr. Cooper said "we endorse the clarification of existing law which provides that an employer offer an HMO option under 'dual choice' first to the employees' representative, if any, and, if accepted by the representative, then to the individual employees."

The House measure retained Labor's collective bargaining opportunity to select a regular private health insurance program as the sole health benefits program, but said that employees could not be forced to accept an HMO.

Military medical school.

The military medical school is still in jeopardy. The school, to be located on the Bethesda, MD, grounds of the Naval Medical Center, was opposed last year by a special White House task force that concluded taxpayers would save $100 million without it. The House recently approved funds for the school, but the Senate asked the General Accounting Office to make a study of the cost effectiveness of the Uniformed Services University of the Health Sciences compared with the present military medical scholarship program. Sen. William Proxmire (D-Wis.) told the Senate $15 million had already been spent on the school and Congress should allow it to go ahead. The AMA has opposed the establishment of the school since its conception a number of years ago.

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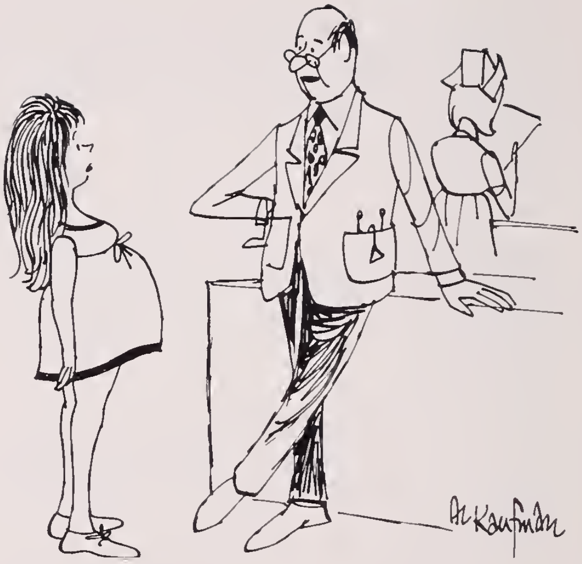

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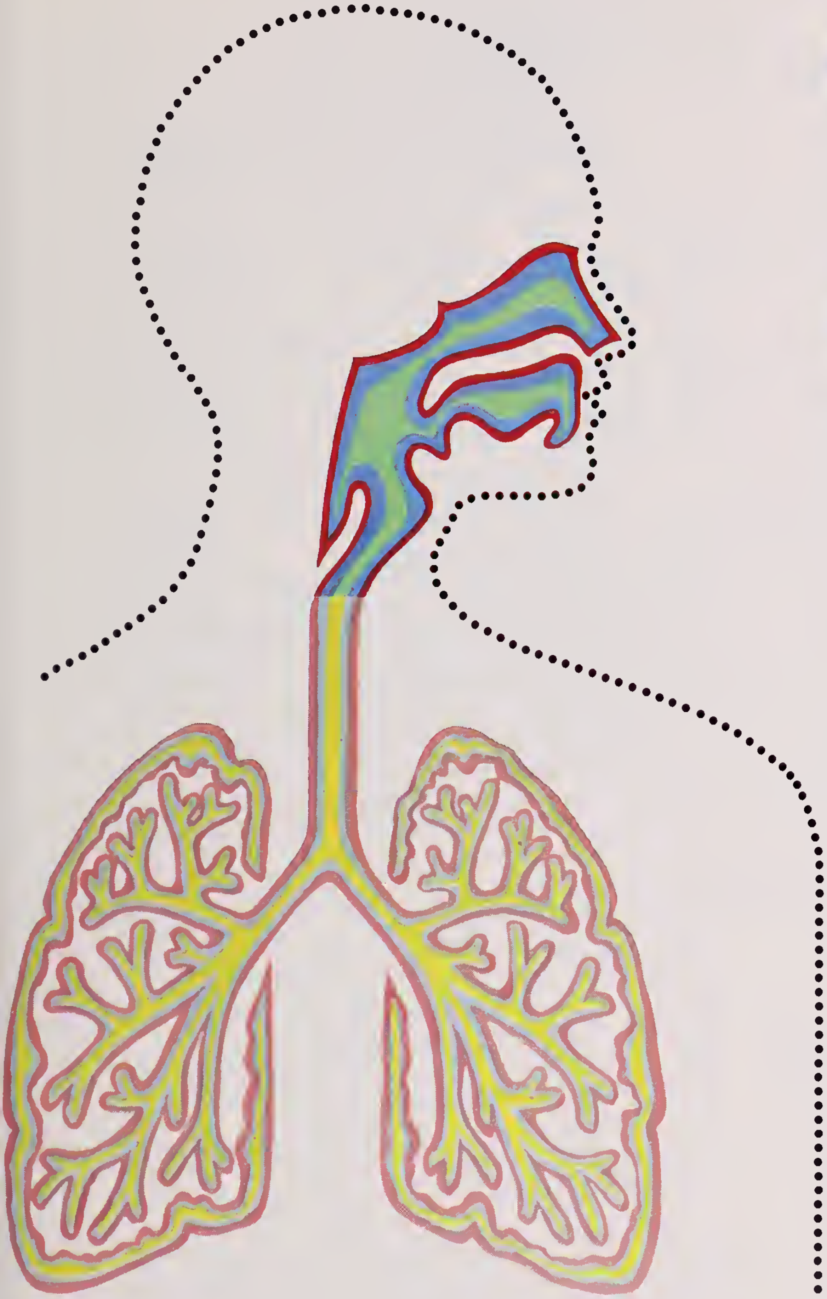

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THE NEBRASKA MEDICAL JOURNAL

ON THE AVERAGE

There are all kinds of averages: the arithmetic mean, the mode, the median, the geometric mean, and the harmonic mean, and there may be more. And there is range, too. Statistics are squirrely things; they can be used sensibly, with caution, and it is even easier to do silly things with them. But the cautions and the pitfalls are well known to the good statistician.

The slurs are funny because they are nonsense, which is always funny, and I will list some that I have collected, to hurl back at the scoffers who know nothing of analysis, and laugh.

The average man and his dog have three legs each.

The chance of dying in a hospital is greater than of dying at home.

The statistician drowned in a swimming pool where the average depth was only five feet, but it was two feet deep at one end and eight at the other.

The average human being has one testicle.

There were 10 girls in a room, and 9 were virgins and one was pregnant. So the 9 virgins were 10 percent pregnant and the pregnant girl was 90 percent a virgin, on the average.

A man had his head in the oven, and his feet in the refrigerator, but he was comfortable on the average.

If all the boys line up on one side of a room, and all the girls on the other, and the boys cover half the distance to the girls on the first step, and half the remaining distance on the next, and so on, then after some 10 or 12 steps, the infinite series will have well approached its limit, or the boys will be near enough, for all practical purposes.

105-year-old people are healthy, because few people die at 105.

You're safe if you bring a bomb on a plane, I've heard; the chance of there being two bombs on a plane is extremely small. Please don't do it; I'm not serious.

I am serious about using statistics sensibly, though.

—F.C.

I JUST THINK SO

If you want to know how good a medicine is, you are trying to predict what will happen if you give it to a patient. There are only two ways of predicting coming events, and they are theoretical and statistical. Theoretical means that it is obviously unwise to step in front of a moving truck, because you are going to get knocked down if you do. The statistical method is much better for several reasons. When you use this method, you try the new method or agent, and you count cases. You subject your findings to analysis, and you decide if there is a difference between the experimented cases and a control series, and if the difference is too large to be explained away by chance.

Actually, there is only one method, because if nobody had ever stepped in front of a moving truck and been injured, there would be no basis for so-called theorizing that stepping in front of moving trucks is bad. Doctors and nondoctors, we all of us, as we go through life, count cases. And then we do a curious thing. We assume that what has happened before will happen again. And so we predict the future, with a reasonable degree of success.

It is dangerous to come up with a theory before you have counted cases. It is bad science to set up an experiment in order to show something that may or may not be so. And it is even worse practice to decide, and to impart your decision to others, that something is so, without counting cases, and without any evidence at all, simply because you feel that it is so.

And so some have felt that a patient had schizophrenia, that there is life after death, that cigaret-smoking is either bad for you or is harmless, and that halothane is whatever the writer wants to think it is, and all without evidence. What I am getting at is this. Too many authorities are speaking their minds, and for publication, on subjects they have not tested, and on questions they have not answered, and this is bad. The nonscientist who reads these things will be convinced that it is so; the true scientist will cringe.

Is there life on Mars? I don't know, and if someone says there is because I just feel there is, it is unfortunate if this is spoken in public or if it appears in print.

If you are scientifically inclined, and you just feel things, you gather evidence. If you are a real scientist, you do not even feel them. And if you have no evidence, you do not write learnedly about something you do not understand.

Knowing is hard; feeling is easy. But knowing is good.

—F.C.

THE WILL TO FAIL

There is, deep within us, a will to fail, that reaches excessive heights in some, but it is easily recognized in many. I have known students appear to go out of their way to fail examinations. People who take drugs may not want to know the truth and may not care; it is possible that they prefer a short intoxicated existence to another. Then there are such things as geophagia, self-flagellation, anorexia nervosa, and masochism.

There are other examples: smoking, not adhering to prescribed diets or medication, and drinking. There seems to be a perverse thread that runs through our lives, prompting us to do things not associated with success and not generally considered natural or conforming. Consider: taking a less-well-paid position, speeding, gambling, driving "chicken" with no hands on the steering wheel, even sky-diving, and of course Russian roulette. Is there not an element of wanting to lose at gambling, and the desire to fail at Russian roulette, else why is the trigger pulled more than once when necessary?

Does not a speaker, in an effort to reach elegance, reach needlessly for a foreign phrase and mispronounce it? How often will a writer use a long word where a little one would do, and then proceed to misspell it and to use it, always misspelled, over and over, until the astute reader is logically forced to conclude that the author has been driven to this by a will to fail.

There is more, like the lady who will spend a great deal of money on an unbecoming dress, and her friend who stands in front of the fine-store window, wanting what is inside, able to afford it, and afraid to go in. Often, when you feel a sneeze almost coming on, you are unable to do it, and when you cannot avoid sneezing, you may not reach a handkerchief in time. And when you want to but cannot get to a rest room, does not that make your need needier, and do you not find that when you are there, the urgency subsides? You can turn pages in a book one at a time until you have one more page to go, then you will always turn two and have to go back.

I agree, the will to fail is easily seen in the act of suicide, especially when obvious motives are wanting, but is not Russian roulette suicide? Has it not been suggested that the gambler is happy to lose? One has written that the next best thing to gambling and winning is gambling and losing. Perhaps as it is better to have loved and lost, it is good to have bet and lost. We may not approve of self-destruction, but to the suicide it may seem logical and even rational, and suicide is one of the ten leading causes of death in the U.S.

Not logical to me, not to me. But there is this funny, this impish, this quite perverse element that makes up a part of us, that will not be denied, and that must be fought, and that some of us cannot quite fight, that wants to go backward while we go forward. It is not natural, we say, but see, it is there, and in so many guises; it is the will to fail.

—F.C.

ON OBSCENITY

I do not pretend to understand obscenity, nor do I know why four-letter words are dirty or why any word should be thought offensive. It must be taught us; we give offense when it is deliberate, and we outrage when we mean to. What is indelicate in one speech and in one culture is harmless in another; in a single language, England and North America do not agree. To be profane is not profanity, and what has been pornography is now art.

One not-in-decent-use word is at the heart of obscenity; I have used it, but sparingly. It was never said in the theater or seen in print. But we see and hear it commonly now, and I suspect it is there for shock value. The author may plead realism and I will not accept it, nor is it vivid writing. I will not be made into a prude by the prurient.

I have a simple test for selecting a book now; it is rough, but it serves me well. If I find the word easily on random page-turning, I put it down. If the author found it necessary to embellish his writing, the writing was necessarily inferior, and often it is not his writing, but hers.

—F.C.

NOT THAT WE DIE

We die like sheep because we must, we die like prisoners whose guards are themselves imprisoned. We dying doctors extend the lives of dying patients, but only for a little while.

The mechanics of dying are not important for how can it matter that we go not all at once like the shay, but piecemeal. His heart gave out, we say, and do we not wonder why, for the heart wears out.

We wear out too, and if we do not do so entirely, our little cells wear out their pattern; they stop doing their thing and go wild. They have lost their sense of living, they have forgotten what to do, they have had it.

But we do not often get cancer of the teeth, or of the fingers or of the diaphragm; or of the patella, or primarily in the liver. And our bones may break, but they do not stop being hitching-posts and making blood and supporting the rest of us.

So we wear out, or we succumb to a hostile environment or to trauma, or we just deteriorate. We go to pieces, which is what I started to say, and pieces of us go in their own times, but it really makes no difference.

For we go quietly and our going is so inevitable as to suggest that the manner of our leaving is not for us to decide or to understand, or even to wonder at. We die strangely, but with as good logic, you might feel we die sensibly. Let me say, we die properly.

—F.C.

ORIGINAL ARTICLES

Physicians' Awareness and Attitudes Toward the Retarded

PART II

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Conclusions

Mental retardation, in terms of magnitude, is the most handicapping of all childhood disorders; yet, the results of this study indicated that many physicians in Omaha were unfamiliar with the local agencies which serve the retarded. The incomplete awareness of available services causes physicians to do a serious disservice to the retarded and their families, as the physician is often the primary, and at times *only*, counselor. A review of the literature reveals that both professionals and parents felt that it was the physician's responsibility to act as this informed counselor and as the source of information and referral to appropriate community services. Obviously, a physician can only do this if he has a knowledge of what services are available in his area.

The lack of awareness of community services on the part of physicians, or their practice of not referring parents of retarded children to available services even when they do have knowledge of such services could have been due in part, to inadequate communication channels between physicians with inform-about their services, or the information given might have been inadequately or poorly presented. However, in the cases of GOARC and ENCOR, numerous mailings have been made to physicians, and both agencies have received extensive news coverage. Due to lack of time or interest, some physicians may not have made an effort to learn about local services for the retarded, or may not have read material sent to them. Yet, it is the responsibility of the physician to be informed, and indifference, rather than ignorance, appears to be the only valid reason today for their relative lack of knowledge in this area.

Great discrepancies in the responses of parents and physicians to similar questions indicated that a communication gap exists between these groups. Evidence of this was given by the parents' responses to a question on which agencies had been recommended by their physicians. All of the parents surveyed received service from a community agency, yet less than half of the parents had been referred to any local agency by primary physicians. Further evidence of the gap was given by parental responses to the question seeking their opinion of their doctor's attitude toward the retarded child. Of the 57% of the parents who were dissatisfied with their doctor's attitude, many indicated a desire for more information from their doctor concerning care and treatment for their child. In contrast, comments made by the parents who were satisfied with their doctor's attitude often included comments about the physicians willingness and openness in discussing their child's problems and progress. It seems that dissatisfaction with physicians is partially caused by the physician's own unwillingness or inability to talk to parents about their child.

The physicians' responses to the questionnaire also revealed that many feel that an institution is still the major placement resource for retarded children, in spite of the rapid increase in community-based services during the last decade. Again, this is probably due to the fact that many doctors were unaware of the wide variety of services offered to the retarded in the area, or because some of the doctors who were aware of the local agencies were not fully familiar with the various alternatives offered to institutional care. In their study, Olshansky and Sternfeld[5] discovered that only 27% of the general practitioners who were familiar with the local services for the retarded could identify the location, sponsorship, or services of the agency.

Some physicians, however, may recommend institutionalization even though they are aware of local services, if they feel that the local services are inadequate and would not meet the needs of a particular child or his family as well as an institution. The contemporary position is that physicians should not strongly recommend institutionalization, but instead should discuss all alternatives with the parents and leave the decision up to them, yet it is significant to note that the physicians surveyed in this study, with one exception, seemed to feel that it was their responsibility to recommend institutionalization.

The parents' responses to several of the questions pointed to the conclusion that parents are more dissatisfied with the physician's attitudes toward their retarded child than they are with the medical treatment given. Several reasons for this difference appear probable. One may be due to the communication gap between parent and physician which was discussed earlier, while another reason might be the oversensitivity of parents to the attitudes of others toward their child. Parents may be sensitive to what they feel are criticisms of themselves or their child and react with hostility and resentment — the family physician can become a target for such feelings. A third reason for the difference may be that some of the physicians, although capable medically, have a poor attitude toward retarded children. Solomons and Menolascino note, "The physician with little empathy for, or experience, in the field of mental retardation, cannot avoid revealing both his lack of interest and his uncertainty in his discussion of diagnostic findings and the resultant recommendation."[6] The physician may also have feelings of frustration when dealing with the retarded because retardation cannot be cured, and the treatment is more educational in nature than medical. All of these factors probably contribute to the dissatisfaction expressed by parents in reference to their physician's attitude toward their child.

Clearly many physicians are unaware of the services of community-based agencies for the retarded, and local agencies should take immediate steps to inform doctors of their services. Newspaper releases and mailings have not been effective; it may be well worth the effort to have an individual representing all the agencies make personal contacts with physicians for the purpose of explaining services, answering questions, and settling misunderstandings. During this personal follow-up, a convenient folder containing pertinent information on local services, including packets to be given to parents of retarded children, could be left with the physician.

Parents who are familiar with local services or who are being served by them, should also be urged by the agencies and the local Association for Retarded Citizens to discuss these services with their physician and take the responsibility of informing him about them.

As has been suggested by others, more courses should be offered on the subject of mental retardation in medical school. These courses should include specific management approaches to the retarded in addition to studies of diagnosis and treatment. In contrast to other fields of medicine, developmental specialists in the field of mental retardation are not being trained in sufficient number, even though it is the most handicapping of all childhood disorders.

Summary

The study found that a large number of pediatricians and general practitioners in Omaha were unfamiliar with the locally available services for the retarded. In addition, 80% of the physicians were still recommending institutionalization for some of their patients who are severely retarded, and 54% are making such recommendations for the moderately retarded. If the above sample is representative, then it would appear that many physicians are working at cross purposes with other professionals and the parent advocacy groups in the field of mental retardation.

The study also posed some questions yet to be answered:

- Do physicians feel an obligation to familiarize themselves with community services, and to refer parents of retarded children to them?
- Does a physician's familiarity with local resources affect his counseling regarding institutionalization?
- Has the recent increase in community-based services caused a decrease in physicians' recommendations of institutionalization?

The problems in the area of physician counseling of parents of retarded children are many and complex. It is hoped that this study has provided answers for some questions, and that it will encourage constructive action on the part of physicians, parents, and agencies to improve future relations between physicians and parents so that the needs of the retarded will be more adequately met in the near future.

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Angina Pectoris Prophylaxis

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IN recent years various treatments for angina pectoris have been developed. While sublingual nitroglycerin remains the mainstay of treatment whenever anginal pain develops, search for new agents which actually decrease the number of anginal attacks or increase the critical threshold have proved controversial and less reproducible.[1] There is much patient to patient difference with one drug working in one patient and another in others. It is therefore of very practical importance for the clinician to be cognizant of all the various options available to him in treating this situation.

The use of preexercise nitroglycerin is often helpful. Propanolol and the long acting coronary vasodilators have received much attention in the literature. Even electrical carotid sinus stimulators have been tested and used with good results in specific situations.[2] The importance of recognizing and treating congestive heart failure and arrhythmia has also been justifiably stressed. In this paper, one more possibility will be presented. It is not a new treatment, however, it is one that seems to be rarely used. The case history of one patient who benefited from this medication will be presented in brief.

The patient is a 52 year old black male who presented in October, 1972 with typical symptoms of acute inferior myocardial infarction. The clinical course was uncomplicated except for mild congestive heart failure treated with diuretics and salt restriction. Three weeks after admission, the patient was discharged on a thiazide diuretic twice daily. Within two weeks he presented with symptoms of angina pectoris, a 12 pound weight gain, paroxysmal nocturnal dyspnea, orthopenea, and nocturnal angina eight times a night. The patient was readmitted digitalized, and diuresed with furosemide with subsidence of his symptoms. Enzymes on this admission were normal. The patient was discharged on isosorbide dinitrate, digoxin, and thiazide daily; furosemide every other day; and nitroglycerin, p.r.n. His failure symptoms completely subsided and his angina stabilized. The patient was again admitted four months later for heart catheterization. Angiography showed complete occlusion of the proximal right coronary artery with an 80 percent occlusion of the left circumflex artery. Left ventricular pressures were 114 over 8 mm/Hg and end diastolic pressure of 14 mm/Hg. Left ventriculography revealed generalized very poor contractibility of the myocardium without evidence for mitral insufficiency. It was felt that the low level of left ventricular function precluded any attempt at coronary revascularization surgery and that intensive medical treatment would be best for this man.

In the 24 months since that time, the patient has lived a fairly active life — he attends bingo five nights a week, rakes and mows his yard, and takes frequent walks. Prior to moderate exercise he takes one sublingual nitroglycerin which usually prevents an anginal attack. His major concern during this time has been the persistence of nocturnal angina which prevents more than two hours sleep at a time. This nocturnal pattern even persisted during several hospitalizations where he was under strict control. The patient was reevaluated by several cardiologists, but all measures tried, failed to suppress this problem. The author recalled a patient with similar complaints several years earlier whose physician had prescribed nitroglycerin ointment with spectacular success.* As a last recourse, it was tried with surprising results: the first night the patient slept uninterrupted for nine hours. The patient has applied ¼" of the ointment on his chest nightly for two months, with only two attacks of nocturnal angina since then.

Angina decubitis is a fairly rare form of the anginal syndrome. However, this can be even more disabling than classical angina pectoris, robbing patients of a valuable good night's rest for months and years. Although not thoroughly understood, it appears that the pathogeniss of this syndrome is similar to that of paroxysmal nocturnal dyspnea with mild acute left ventricular failure secondary to increased intrathoracic blood flows. Often strict control of salt intake, diuretics, and digitalis ablate the symptoms. However, in a significant number of patients, like the one presented here, these measures fail. This is one clinical situation where nitroglycerin paste should be tried.

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*Nitrol ointment: Kremers Urban Company Milwaukee, Wisc

In addition, recent comparative studies of nitroglycerin ointment vs. long acting nitrates have proven interesting and provocative. Recheck et al., using exercise duration prior to ischemic pain, have shown nitroglycerin paste as good as the sublingual nitrates within one to two hours after administration; in addition only nitroglycerin paste consistently increased the ischemic pain threshold as late as three hours post administration.[3] This finding has led Goldstein and Epstein to "suggest that nitroglycerin ointment may be distinctly superior to either sublingual or oral nitrates in angina prophylaxis."[4] Still, in a disease so easily affected by emotion, interesting speculation concerning the route of administration (i.e. rubbing, carressing) arises.

As with any medication, certain cautions are in order: as early as 1955 David and Weisel reported possible severe rebound symptoms of coronary insufficiency following withdrawal of the paste. This however, has not been substantially proven.[5] Still several authors report the clinical impression that this is indeed true.[6,7] It is thus wise to monitor closely the amount of paste used by the patient and to withdraw the drug slowly in stepwise fashion.

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Intramural Pseudodiverticulosis of the Esophagus

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INTRAMURAL pseudodiverticulosis of the esophagus is a rare finding first described by Mendl et al[7] in 1960. The following is a report of two cases of this entity observed in elderly males complaining of dysphagia.

Case Reports

Case I: L.B., a 68 year-old white male was admitted to the hospital complaining of dysphagia over a nine year period. Nine years previously he had experienced an episode of food lodging in his esophagus in the region of the suprasternal notch and was treated medically at that time. He continued to have symptoms of dysphagia through the years which he was able to control by regulating his diet. In the two months before admission he began to have an acute exacerbation of symptoms. Food would stick in his throat and even the ingestion of liquids caused him some difficulty. He had experienced no loss of weight during this period. He had no past history of peptic disease and did not complain of retrosternal burning.

Physical examination was unremarkable. Blood pressure was 140/90 and the pulse was 80. He was a healthy appearing male with no splenomegaly or masses. Bowel sounds were normal. Hgb 16, WBC 9,800. Stools were negative for occult blood. Blood chemistry was normal except for a glucose of 120.

An upper gastrointestinal examination performed the day after admission showed a persistent narrowing of the proximal esophagus just beyond the thoracic inlet. This measured approximately 8 cm in length. Numerous mucosal outpouchings were noted in the area of stenosis and throughout the distal two thirds of the esophagus (Fig. 1). At the time of fluoroscopy, the swallowing function and esophageal motility appeared normal. No hiatal hernia was seen although a pharyngeal diverticulum was noted on the right. The remainder of the examination was normal.

Endoscopy was performed; the scope passed easily through the proximal stricture into the distal esophagus. The stricture was felt to represent edema rather than fibrous compromise of the lumen. Numerous small pseudodiverticula were seen to involve almost the entire surface area of the esophagus with friability of the mucosa. Cultures of the esophagus were negative for monilia and grew out pseudomonas and E Coli. A biopsy of the esophagus revealed chronic inflammation.

An esophagram performed ten days after admission and following endoscopy revealed considerable improvement in the caliber of the proximal esophagus. Evidence of pseudodiverticulosis of the entire thoracic esophagus continued although the pseudodiverticula were somewhat less prominent. A small sliding hiatal hernia was felt to be present at this time. Subsequent endoscopy revealed a marked decrease in the edema and friability but the "pit-like" deformities remained.

The patient was discharged on a selected diet and antacids to be followed on an outpatient basis.

Case II: S.H. a 51 year old negro male had a three to six month history of dysphagia. He complained of food sticking in his lower esophagus with some regurgitation. He had a long history of excessive alcoholic consumption and admitted to some heartburn when drinking. He experienced a 20 pound weight loss in the last year.

Physical examination was unremarkable. Blood pressure was 110/80 and the pulse was

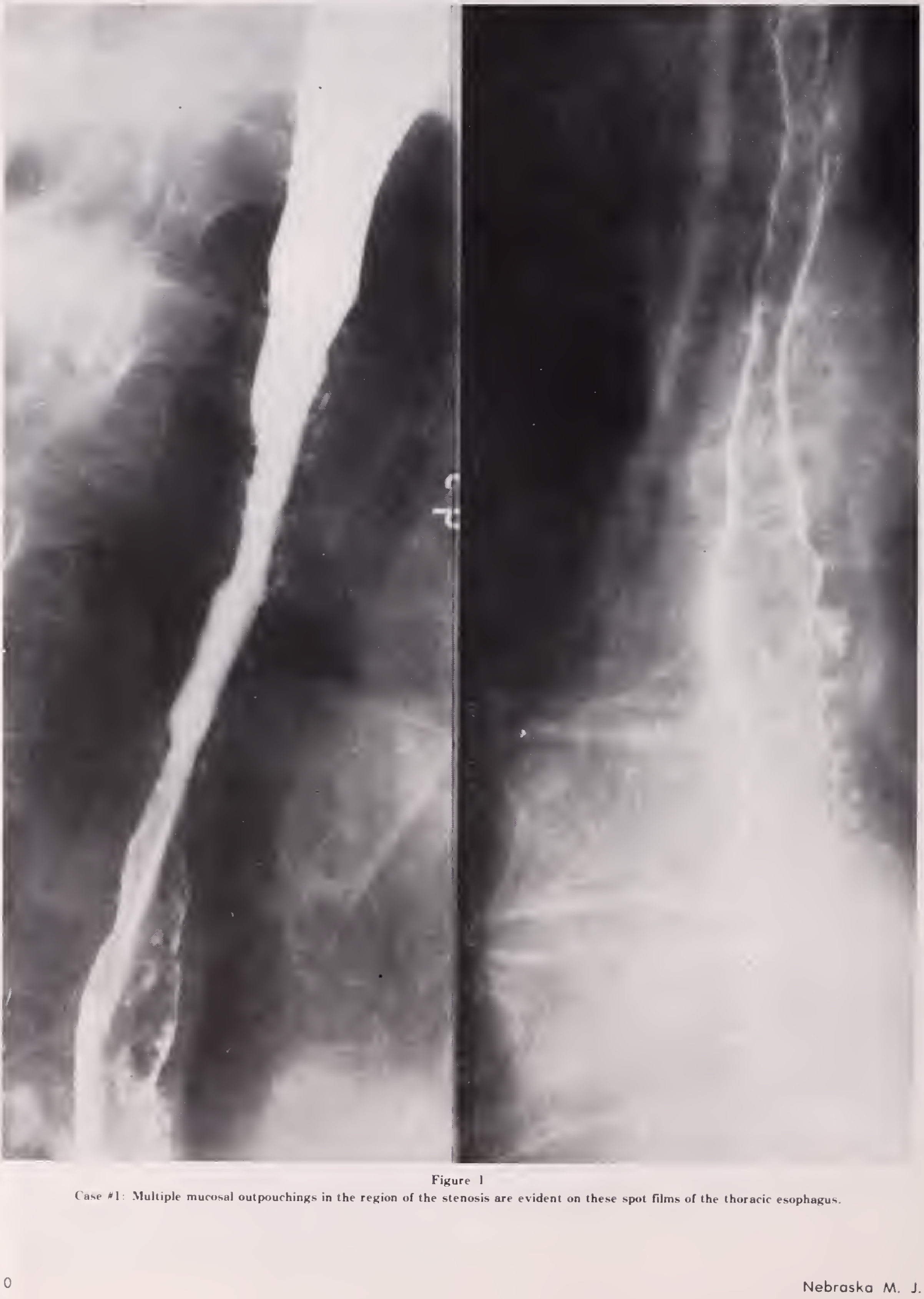

Figure 1
Case #1: Multiple mucosal outpouchings in the region of the stenosis are evident on these spot films of the thoracic esophagus.

80. Abdomen was nontender with no organomegaly present.

Hgb 13.9 WBC 9,200 SGOT 31 Alk Phos. 25 LDH 38 Bil 1 Amylase 172.

An upper gastrointestinal examination was performed and numerous small outpouchings of the thoracic esophagus, especially within the distal esophagus were seen (Fig. 2). Some narrowing of the esophagus in the region of the esophagogastric junction was apparent. The swallowing function and esophageal motility appeared normal. No definite hiatal hernia or gastroesophageal reflux could be identified.

Endoscopy was performed and no manifestations of thrush were seen. The distal 4cm of the esophagus revealed pale edematous mucosa punctated with "small holes." The cardioesophageal junction was strictured and passage of the scope caused some bleeding. No culture or biopsy was obtained. There was no evidence of a hiatal hernia.

The patient demanded to be discharged and therefore no follow-up examination could be obtained.

Discussion

Esophageal intramural pseudodiverticulosis of the esophagus is a rare and rather interesting finding in patients who complain of long standing dysphagia. Since it was first recognized in 1960,[7] fifteen cases of this entity have been published. Most of the cases have been in elderly or middle aged males although four of the patients were below twenty-one years of age with the youngest only eleven years of age.[9] All of the patients had a history of dysphagia but were otherwise in generally good condition. Their symptoms (even in the children) had usually been present for years.

The roentgenographic findings in this entity are unique. Numerous small (1-3 mm) flask shaped outpouchings of the esophagus are noted on the esophagram. They communicate with the esophageal lumen through narrow necked openings. In contrast to monilial ulcers which are larger, deeper and more ragged these pseudodiverticula are more uniform and are not seen to project beyond the esophageal wall. In over half of the patients an area of esophageal narrowing or stricture was identified. Abnormal esophageal motility was also commonly seen. Demonstration of a hiatal hernia or gastroesophageal reflux was a rather infrequent finding. Subsequent examinations after treatment usually showed improvement in the appearance of the stricture with the pseudodiverticula showing little, if any, change. In several cases, however, the esophagus appeared to return to near normal.[2,4,6,9,10]

On esophagoscopy, most of the examiners described seeing numerous pinpoint openings with a yellow-whitish discharge. The mucosa did not have the appearance of a monilia infection although Candida albicans was cultured in several of the cases.[3,4,8] Several of the examiners reported the esophagus as appearing basically normal.[1,5] The biopsies which were performed showed varying degrees of acute and chronic inflammation.

Autopsies were performed on two of the patients who died of unrelated pathology.[2,5] Numerous submucosal cysts were identified with their lumina in direct continuity with the esophagus. These "cavities represented dilated ampullae of the excretory ducts and contained sloughed epithelial lining cells and varying numbers of inflammatory cells."[2] These dilated esophageal gland ducts were quite similar to those seen in chronic bronchitis. It is now obvious that the outpouchings seen are not true diverticula but represent dilated mucous glands.

Lupovitch et al[5] believe the basic etiology of this entity involves an acquired or congenital adenosis or an excessive number of submucosal glands. These predispose to infection which causes the dilated appearance of the glands seen. Boyd et al[2] state that the basic etiology is inflammatory although "it is also possible that the localized inflammatory changes occur secondary to an abnormality of the mucous glands." Both authors believe the esophagitis was present initially and that it may well account in part for the commonly found abnormal motor activity and stricture formation within the esophagus. The possibility that stricture formation or abnormal motility may cause stasis which leads to infection and dilated glands also has to be considered.

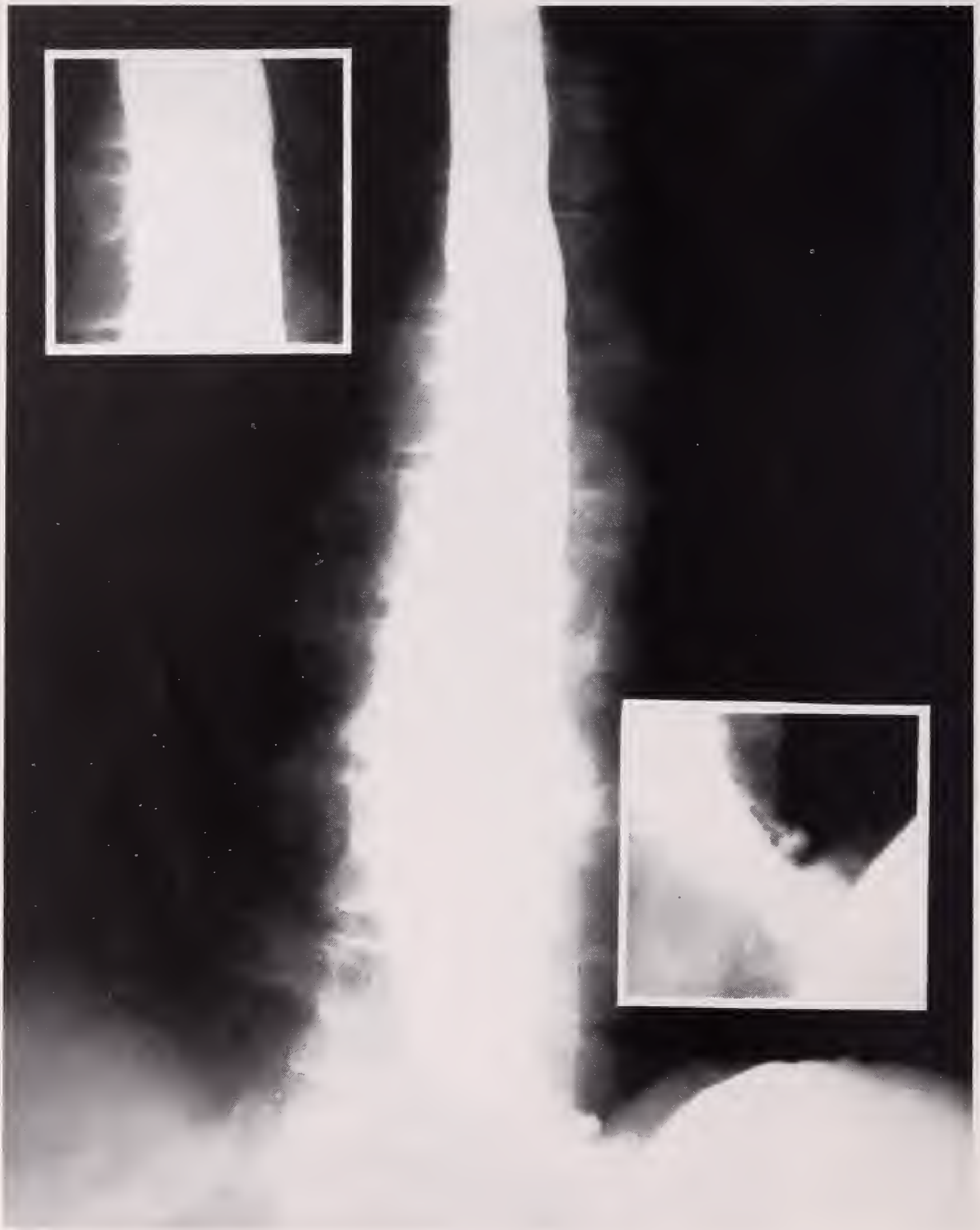

Figure 2
Case #2: Overhead film of the esophagus demonstrates numerous mucosal pseudodiverticula.

The main differential diagnosis is with Candidiasis. Monilia usually appear as a super-infection in people who are debilitated or are on antibiotics or steroids. The roentgenographic findings in monilia are also different. Candida albicans is ubiquitous and is not necessarily a pathogen. If the monilia itself is symptomatic, it should improve following appropriate therapy.

Treatment of intramural pseudodiverticulosis of the esophagus centers around relieving the obstruction, if any, and treating the underlying inflammatory condition.

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Hepatic Coma: Theory and Therapy*

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PART II

Avoidance of Precipitating Agents or Conditions

Sedatives such as barbiturates, opiates, paraldehyde and benzadiazepines must be avoided in all instances. In our experience they are the single most common cause of coma in liver disease. These substances may contribute to coma by their direct effect on brain; altering respiration and thereby increasing hypoxia. The comagenic potential of sedatives is a well known clinical observation and is primarily related to the impaired metabolism of sedative drugs by the failing liver.[14] Confusion, delerium and/or agitation ideally is treated with the presence of trained attendants and not restraints or sedatives.

Diuretics are commonly employed to treat the ascites, peripheral edema and low urinary output that accompany liver failure. Unfortunately, the secondary effects of hypovolemia and hypokalemia may be associated with the hepatorenal syndrome. The loss of K^+ also may have a direct effect on the brain and may produce an alkalosis which, as mentioned above, would enhance the transfer of ammonia into the brain. For these reasons, diuretics should be avoided.

Infection may occur without clinical signs and should be excluded in all patients. The syndrome of spontaneous peritonitis which occurs in cirrhotic patients with ascites and jaundice is not an uncommon event.[15] A diagnostic paracentesis should be performed in all such patients to exclude this treatable complication.

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Gastrointestinal hemorrhage must be carefully excluded and when identified, vigorously treated. One must keep in mind that a significant number of cirrhotic patients with hemorrhage will be bleeding from a source other than variceal hemorrhage.[16] In the cirrhotic patient gastrointestinal bleeding is detrimental not only because it reduces perfusion in the liver and brain but because of the additional protein burden this bleeding adds. Protein either from a dietary source or from hemorrhage should be avoided in the liver patient since it is a potential source of blood ammonia. Protein once in the GI tract is broken down to nitrogenous compounds and ammonia. Under normal conditions the human body absorbs about 4 grams of ammonia daily from the GI tract. This is carried to the liver where it is converted to urea. About 25% of this urea diffuses back into the gut where it is again hydrolyzed to ammonia by the ureases of bacterial origin and absorbed contributing to the levels of blood ammonia.

Constipation is another condition which should be guarded against in the liver patient because it promotes a greater intestinal production and absorption of ammonia and other nigrogenous products which promote coma.

Reduction in the production and absorption of toxic nitrogenous products

Simply put, this involves the use of antibiotics such as neomycin in an attempt to "sterilize" the gut, restriction of exogenous protein and purgatives.

Antibiotic usage. Neomycin in a dose of 1-4 gms/day orally or 1 gram rectally by retention enema is the most common antibacterial agent utilized. Neomycin is minimally absorbed ($< 4\%$) and is thought to act by inhibiting urea splitting bacteria and thereby reducing the ammonia burden. Caution should be observed since prolonged treatment may result in oto and nephro-toxicity. Nevertheless, Neomycin remains as a cornerstone of therapy.

Protein restriction is necessary as an initial step in all cases of encephalopathy. Often the simple expedient of reducing dietary protein intake to 40 gms or lower may control hepatic coma. As liver function improves it may become possible to resume more normal protein intake. Some patients are exquisitely sensitive to slight increases in protein particularly when hypokalemia is also present. The combination of increased protein - hypokalemia - alkalosis should be searched for in all cases of hepatic encephalopathy, particularly in the chronic cirrhotic.

Purgatives are employed in an effort to rid the bowel of blood or protein which may in turn increase the ammonia load. Restraint must be practiced as excessive catharsis may cause severe dehydration.

General Supportive Measures

The care of the patient with hepatic coma demands meticulous attention to detail and emphasizes general supportive measures in the absence of more specific treatment. Hypoglycemia is a rare but treatable complication. Appropriate treatment is 10% dextrose infused in a central vein. Cardiorespiratory and renal failure should be anticipated and vigorously treated. Vitamin and coagulation deficiencies are treated with intravenous vitamins, including folic acid and vitamin K. Rarely whole plasma may be necessary to treat hemorrhagic diathesis. Adequate nutrition is essential but is complicated by the accompanying protein intolerance. Administration of essential amino acid mixtures offer promise for the future.[17,18] In the patient in acute liver failure, correction of hypoalbuminemia with salt — poor albumin may be beneficial. Electrolyte abnormalities, particularly hyponatremia and hypokalemia, are common and should be corrected.

Heroic Measures

Desperate situations call for desperate measures — nowhere in medicine is this aphorism applied more frequently than in the treatment of acute fulminant hepatitis. For lack of specific therapy a host of dramatic and unproven treatment modalities have been promoted. These include exchange transfusion, extracorporeal liver perfusions, cross circulation with human volunteers or baboons, and more recently, total body washout. A controlled trial[19] has not borne out the early promise of exchange transfusion and lack of proper controls make it impossible to assess the value of the remainder of the treatment modalities listed.

Corticosteroids are ritualistically given to the majority of patients with fulminant liver failure secondary to viral hepatitis or drug toxicity. Unfortunately, the value of such therapy has never been validated. Corticosteroids have been shown to be of value in the treatment of decompensated chronic active hepatitis.[20,21]

Hepatic encephalopathy precipitated by drugs or exogenous protein load responds favorably to simple supportive measures when the inciting agent or agents are removed. Therefore the outlook in these conditions is much more favorable than the hepatic coma which accompanies fulminant liver failure.

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Silver Anniversary

MICHAEL CROFOOT, M.D., F.A.A.P.
Professor of Clinical Pediatrics
at University of Nebraska

WHEN the Floyd Rogers Camp for diabetic children convenes this June 15th, it will mark our 25th anniversary.

There were 13 children present at the first session in 1951; last year there were over 90. We have taken any child from ages 8 to 16 regardless of color, sex, or financial status. The present tuition is $150, but many parents can pay little or nothing. We should long since have gone bankrupt were it not for the money given by various charitable groups such as the Nebraska Elks, the World-Herald Good Fellows, the Halo Club of Mutual Benefit, by foundations such as the Swanson Foundation as well as by many individuals. We are sponsored by the Nebraska Diabetic Society.

Here are some lessons we have learned.

First: Rent a camp rather than own one.

Second: Find a good camp director.

During the first 20 years we were fortunate to have Miss Anna Smrha, food economist for the Nebraska State Health Department. In the last five we have had Mr. Sherman Poska, formerly head of Esther K. Newman Camp. He acts as executive secretary, taking care of all the details such as registration, programming, procurement of food, cooks, counsellors, and insurance. This leaves the senior staff doctors, volunteers all, free to guide the medical policy.

Third Axiom: The board of directors should be versatile, loyal, and self-replacing. Our board is made up of not only doctors and nurses, dieticians and pharmacists, but also lawyers, businessmen, broadcasters and parents or relatives of diabetics. Each one of the key personnel should have an understudy.

Thus when Dr. Floyd Rogers died, we had Dr. Morris Margolin, Dr. Albert Murphy, then Dr. Ernest Wegner, Dr. Gordon Gibbs, Dr. Michael Crofoot, now Dr. Dale Ebers.

We try to have the resident doctors and nurses seasoned by at least one prior session in camp. This year our two resident physicians, will be Dr. Philip Gasseling, chief resident in pediatrics, and Dr. Gerald Gibbs, resident in medicine at Nebraska. Also we have a nursing staff picked by our director, Mrs. Gordon Gibbs, R.N., a cadre of nursing students with an R.N. instructor from Bryan Memorial, a veteran lab technician, a certified dietician plus dietetic interns. Being in charge of 90 diabetic children for two weeks is such a concentrated educational experience that our alumni become authorities in their own communities. Among them are Dr. Harold Gentry of Gering, Dr. Marshall Zahller and Dr. Hobart Wiltsie of Omaha, Dr. Kenton Shaffer of Kearney, and Dr. Larry Bausch of Lincoln.

The children stop feeling insecure and sorry for themselves since they see others in their peer group who also have to take insulin, beware of reactions, and watch their calories. They learn to give their own injections, while their mothers enjoy a two weeks rest. None of our patients, to my knowledge, have married fellow campers, but three of our former campers have become M.D.'s. When we began, only one state near Nebraska had a camp for diabetic children. There are now diabetic camps in all the neighboring states including Iowa and Minnesota as well as a second Nebraska camp in Scottsbluff.

For many years Dr. Harold Gifford, the professor of opthalmology at Nebraska came to examine the eyes of the children, but he found none with diabetic pathology. The one cataract he found turned out to have been present at birth.

Fourth axiom: It is best to have opening day on Sunday with the patients coming in at staggered times. Some come from towns hundreds of miles away. We have at least four M.D.s on hand to examine the children for possible contagion, to reassure the parents, to set the insulin dose (usually 5%

less than the home dosage because of the exercise at camp), and to set the A.D.A. diet. We allow 1,000 calories plus 100 calories for each year of age up to 12. Thus a ten year old would get a 2,000 calorie diet. Food is served cafeteria style. A child on a lower calorie diet will get, for example, one hot dog, while one on a higher diet might get two. There are separate tables for those on the same calorie diet. Each noon the dietician explains the exchange list. Thus the children get some idea where the calories are. Many come in on a free diet, which means no caloric restriction at all.

Fifth axiom: The insulin parade before breakfast and after testing the second urine specimen passed must be well organized. Nurses check the dosage before the child injects. We have separate tables for the U 40, the U 80, and the U 100 groups. It is easy to confuse the syringes and double the dose. The new U 100 insulin is a great improvement and hopefully will soon be the only strength in common use. It causes less pain because of less volume and not only prevents the unsightly insulin atrophy, but may even cure it if directed into the area of atrophy. The use of disposable insulin syringes is another advance. They are always sharp, sterile, and convenient. Except for the insulin parade and the testing of urines at 7 and 11 A.M. and 4 and 8 P.M. the child leads the life of a well organized camp. They get afternoon snacks, bedtime snacks, close attention by the counsellors who are prepared to counteract reactions by placing some corn sugar or Karo syrup under the tongue. This works so rapidly that I feel it may be absorbed directly into the blood stream from under the tongue. On the other hand we have had the experience of a 16 year old male who swallowed two glasses of sweetened orange juice, lapsed into unconsciousness, had to be revived with intravenous dextrose. He then vomited all the juice which had never left his stomach and remained unabsorbed. Our doctors and nurses carry 50% glucose in ready-to-use-syringes. Glucagon packets are also on hand, but almost all our reactions can be handled by oral dextrose because they are caught early. The use of Dextrostix to signal a low blood sugar is a great help. The speed with which an insulin reaction can come on is astonishing. One boy who had been pitching soft ball on a hot day, suddenly froze in his delivery unable to release the ball. After some dextrose he went on to strike out the side.

For bed checks at 2 and 4 A.M., we have found hypoglycemia screening by means of a flashlight to be reliable and a great convenience. The beam of light must be moved horizontally and vertically across the closed lid to find the pupil because of drifting of the eyeball during sleep. When the squint does not quickly develop, a rotary survey of the entire eyelid is made so that the beam of light is certain to penetrate the pupillary opening and strike the retina. If no response is obtained, the camper is awakened and checked by other means. We are indebted to Dr. Samuel Eichold of Camp Seal Harris in Alabama for this valuable method. It may also be of help to the parents when the child gets home.

On several occasions we have had serious problems with teenaged girls who cheated on their Clinitests. One girl came to camp on a dosage of 36 units and from the second day on began to show all blue Clinitests. Our unsuspecting resident reduced her dosage 10% each day. No Ketotests were run since she had negative urine tests, and on the 10th day of camp, down to 13 units, she went into incipient coma and had to be rushed to Children's Hospital. Two days later she was all right. I told her father his daughter had been testing tap water instead of urine.

Whoever heads the camp should have umbrella coverage.

Another teen age girl sneaked out of her tent one midnight, went to the icebox where the insulin is stored and gave herself 400 units of insulin to end it all. Her tent counsellor got a hint from her, alerted our resident who started I.V. glucose and rushed her into Children's Hospital. No harm resulted.

Axiom: Keep insulin under lock and key.

After psychiatric treatment this same girl applied for camp the next season. After much debate our board offered her the chance, but she chose not to come.

Nothing creates more confusion than a diabetic child who also has epilepsy. We cured one such child of his "epilepsy" when blood sugars showed that he was really having insulin reactions. Another child who kept having seizures even though her Dextrostix read 250 mgm proved to have an abnormal EEG. When put on Dilantin she stopped having seizures.

Final Thought: Our camp is run by the fruits of private enterprise. We have run a successful operation on a shoe string budget because so many people have done so much for so little. Our hard working dietician turns back half her salary check as a donation. Our visiting doctors such as Dr. Charles Hankins, Dr. William Dickerson, Dr. Edward Langdon, Dr. Milton Margolin, and Dr. Joseph Shipp from Omaha, Dr. Alice Bittner, Dr. John Williams from Lincoln, Dr. Dan Nye from Kearney, to name a few, have given their valuable time. The Eli Lilly Company gives us our insulin, The Ames Company our Clinitests, Ketostix, Becton-Dickinson our disposable syringes. If the Federal Government were financing our operation the cost would be five times as much and the quality half as good.

This year the camp will be in session from June 15th to June 28th at the Gene Eppley Camp near Plattsmouth, Nebraska. Apply to Mr. Sherman Poska at 4615 Capitol Avenue, Omaha, Nebraska 68132.

It is my hope that 25 years from now one of my successors will write a paper to celebrate the Golden Anniversary of Camp Floyd Rogers.

My 50 Years of Medical Learning

CHARLES R. WILLIAMS, M.D.

I was born in November, 1899, which indicates that if I live to be 101 years of age, I shall have lived in three centuries. I was born on the Watson ranch at Kearney, Nebraska, where nine sections of alfalfa were harvested by horse and man and stored — the largest cow barn in the world. We moved to University Place in 1904 where my father started the first nursery in Lincoln. I attended kindergarten in the (new) C.C. White Building and where I received my A.B. degree from Nebraska Wesleyan.

Many of the students at the University of Nebraska Medical School did much to earn their way through school. I had a job at the Masonic Home for Boys and walked the two miles even at the noon hours in order to get a free meal. Brisk walking is still a pleasure to me.

The University of Nebraska 1926 class was the first to be involved in the legislative ruling which required an internship before we could receive our M.D. degree. The hitch came when we discovered we would not be accepted as an intern in the hospital without that degree. A lawyer hired by our class arranged to have our degrees given in escrow.

The University of Nebraska Medical College had (I believe) the only electrocardiographic instrument between Chicago and the west coast. The instrument occupied a small room with wires overhead such as the early x-ray machine. Dr. Guenther was probably the only one who could correctly interpret the ECG readings.

Internship at St. Lukes Hospital in Kansas City was enjoyable. I remember being in the dining room one noon when news came over the radio that Lindbergh had been sighted over Ireland. One most unusual incident there was hearing a baby (second of twins) cry in utero; rapid delivery failed to save the infant. Another obstetrician there (Dr. Buford Hamilton) gave us our first lesson in routine rectal examination at the time of delivery. A couple of years later he enjoyed teasing me of my reputation (in Orrick, Missouri) as an obstetrician — "I didn't know which hole the baby came out of!"

I was told of Orrick, population four hundred, by an E.N.T. man who said he had operated 17 mastoids from that community in the past several years. I introduced the otoscope there and lanced many more bulging ear drums in my two years there than in the forty some years since then. The town had two drug stores. I had my one room office (rent free) in the back of one. A $200 model-A coupe and my grip were the extent of my equipment and all I could afford.

It was at Orrick that I was called to a nearby town for a precipitate delivery of a primipara who did not get to her doctor in Kansas City. This was in the early morning hours of my birthday while I was listening to radio reports of Herbert Hoover's win over Al Smith. Then exactly 28 years later a young lady in Syracuse had precipitated her baby on the bathroom floor, on my birthday, the night after election day.

The nearest I ever came to losing a mother in childbirth was when, being unable to tease out the placenta, one of my elderly colleagues was consulted. He extracted it quickly by hand, but didn't even take off his coat and barely rinsed his hands. No glove! I later drained an abscess in the groin and she fortunately recovered, of course without antibiotics.

After Orrick, Mo. we moved to what seemed greener pastures at Hemmingford, Nebraska, but the severe drouth and the depression of the 30s produced very little in the way of green, either as vegetation or money. It was a gamble to pay the bank fifty cents monthly for a checking account or pay a similar amount in money orders. The yield from seed potatoes (planted by the carload) often left in the field — was not enough to afford digging them. Ear corn was often shoveled in the furnace as fuel. The loss of my wife during this drouth-depression period was a serious obstacle and necessitated further sacrifice and adjustments.

I located in Syracuse, Nebraska in 1937. There I lived in the back of a small building for which I paid $20 per month rent. Later I was able to afford an office girl at five dollars a week and she was glad to get the job. I had the only x-ray in town, a G.E. portable. This machine was also used to take x-rays for the two dentists in Syracuse. The fluoroscope attachment was held by hand up to my face. Home deliveries (with chloroform anesthesia) were the rule for several years. Later cases were sent to hospitals in Lincoln and Nebraska City. Drs. Garlinghouse and Harvey were very cooperative in caring for rapid deliveries that couldn't wait for my arrival. This was a very busy time during World War Two. Many of my meals were just snacks while driving in the car. It then occurred to me that I did not spend a total of an hour a month to read newspapers — just the headlines. Yet this was a challenge to me, covering an area formerly served by six or seven doctors. Fortunately, my good health carried me through and I have no recollection of feeling oppressed.

During this period I was too busy to get out of town for a vacation, let alone for postgraduate studies. Our techniques were those learned from the school of 'hard knocks' which was too aptly termed the practice of medicine. Postgraduate courses at the University of Minnesota in the 40s and later to medical conventions were found essential and stimulating.

The first considerable period of time off was a trip to the World Medical Convention in Stockholm in 1951 and an opportunity to meet Dr. Albert Schweitzer. Then to the World's Fair in Brussels in 1968 and a trip around the world while going to and from a visit to my son in Pakistan. These had an educational value as well as a chance for relaxation.

Now almost daily reading of medical literature is essential and stimulates one to try to keep up with the scientific advances in our profession. Emotional uplift comes from reading from medical minds much more brilliant than my own.

I am now semi-retired in a new office residence building. Office hours are limited to Monday, Wednesday, Friday. It has been a pleasure to work and "compete" with two young men recently located here. They have been very courteous and cooperative. If these young men are typical of the coming generation of young medics, there is a good prospect of our profession regaining much of the respect and confidence needed from the public.

Dr. Mayer at Burr, Dr. Tyson at Murray, Dr. Anderson at Nehawka and recently Dr. Schulz at Tecumseh have been recognized by their respective communities for special honors due them. It is an index of the advantage the General Practitioner has in enhancing public relations between the public and the medical profession.

Sir William Osler has been quoted as insisting the most important factor in caring for the patient is to *care* for the patient. Dr. Irvine Page recently dwelt on the same theme. Dr. Albert Schweitzer after gaining world recognition in philosophy, theology, and music, took up medicine to fulfill his desire for personal service to the underprivileged. He has been aptly termed the thirteenth disciple, the acme of humility in a genius. My meeting with him in Strasburg (1951) was a memorable event. One couldn't help but be impressed by the radiant kindness and happiness in his face. Our trip in 1968 to the United Christian Hospital in Lahore, Pakistan was also a lesson in the caliber of work done by American missionary physicians. The first open heart surgery performed in Pakistan was done there, a big boost for American prestige.

A few years ago an article by an Oklahoma physician appeared in a medical journal headed "Love is a Verb." Not a gift, but an effective personal service to a person in need. It is a very necessary ingredient (a catalyst) to the joy of living, and certainly to the true art of medical practice. Just as a housewife may spend many hours tending her flowers, so may a dedicated physician (and thank God there are many of them) take pleasure in the challenge of enhancing the beauty of a wilting personality.

Breathes there a Doc with heart so cool who, while manning his life boat in the gulf stream of human progress has been selective in choosing his patients most suited to his financial gain, and wonders why the public is critical of his indifference to their needs, for his special abilities?

It was a wilting hypochondriac who several years ago taught me the value of a smile. While she was rambling on with her list of worries, my mind carelessly wandered and I thought of some pleasant incident. She saw my smile and returned it. It was the first time I had ever seen her smile! It has been much easier for me to smile with my patients since that experience. I'm glad she came to me for help. Even though she died later of amytrophic lateral sclerosis, I like to think I helped her, and I know she helped me.

General practice together with my hobbies of music and gardening make it possible for me to enjoy life in a constructive manner, even in my declining years. I have, and am still enjoying every year of it.

President's Page

The beginning of a new year has always been an auspicious time through all the ages in the history of man, and the new year is still celebrated in one way or another throughout the world. It prompts us to recall what has been and what may be. We find ourselves renewing some hopes and discarding others. Especially in this year of 1976, we relfect on the two hundred years since thirteen colonies declared their independence, to establish the country that is ours today. Their vision and inspiration have been praised beyond any necessity to do more here, and we have much in which to take pride.

Surely medicine can hold its head high as it tells its story. By almost every measurement, medicine, organized and individual, has reached heights of success that exceed any flight of fancy two hundred years ago. More infants survive to live long, nearly disease-free lives than would ever have been dreamed of. But as we go about our work, knowing how much we are able to do, we must be humble, because we stand on the shoulders of great men who have made our way so easy. Many of our colleagues can still tell of this, stories that unfortunately may fall on unbelieving young ears.

But it seems that the challenge facing each of us and our organization becomes ever greater. We find ourselves defending our progress and our achievements; we find ourselves trying to justify why we do what we do; and we find ourselves accused of doing too much. We find ourselves forced by respect for law to spend our time and our patient's money in activities to prove what probably will not be believed by the harpies who pick at us — that we are doing an excellent job, efficiently and economically. Perhaps it is a compliment to our stature and prestige that we are blamed for so many things that are actually quite beyond our control and which fit much more properly in the laps of the politicians and planners who accuse us so easily and so vigorously.

Presently, we are engaged in a terrible battle merely to preserve the opportunity to practice medicine. The problem of medical liability insurance is so complex that it almost defies analysis. Certainly, its solution will not lie only in the complex and detailed laws which are being considered by various legislatures, and we find ourselves wondering if the necessary changes in our society and its attitudes can indeed occur soon enough. A small number of dedicated members of the Nebraska Medical Association have given an un-measured number of hours preparing a legislative proposal which we hope will permit Nebraska physicians to continue to work for their patients in a free and unencumbered manner. We hope the passage of this legislation will permit at least a lessening of concerns and anxieties which interfere with our best efforts. In the words of Oliver Wendell Holmes, Jr., the efforts of our colleagues have been "to hammer out as compact and solid a piece of work as one can, to try to make it first-rate, and to leave it unadvertised." As you read this, the results of their efforts will be meeting the challenges of the legislative process, carried forth by the highest hopes and the best efforts the Association can muster. By now

many of you will have been called upon to help in this effort, and your response is all-important. "Those guys in Lincoln" can do nothing without the 1400 physicians who are our strength and resource.

The year, and years, ahead will be full of exciting and terrifying change. Many of us are more than puzzled, even distressed and angry, as we read of strikes, work stoppage, and unions. We find it difficult to understand, and we deplore, this sort of a development in our profession. Is this, indeed, the only language that can be understood by those who seem bent on cutting us down and forcing us into their mold? Do we indeed still have the prestige, status, and professional strength which have provided us our enviable position? Do values remain the same, or must we begin to substitute new ones for old?

I believe we must remain a profession and not become a trade. We must keep our professional organizations so strong and so representative that those who hear us will know we speak for medicine and for the physicians who will not compromise their efforts to do their best for those who call on them. We must choose leaders whom we can trust, and we must be willing to place that trust in them. We must be willing to listen to those who have something to tell us. We must stand together voluntarily, under no coercion or duress. In this way, we will have strength not possible to a union or to a trade, and we shall continue in a two-hundred-year-old tradition of free individuals uniting themselves in a just cause, for no selfish motive, but because of dedication to ideals and principles far older than our young country. This requires that each of us shall become involved in the action around us. Again quoting Holmes, "It is required of a man that he should share the passion and action of his time, at peril of being judged not to have lived." Let it be said of none of us that we did not live.

Warren Bosley, M.D.

The Auxiliary

WHO IS THE "IMPAIRED PHYSICIAN?"

This person is a practitioner of the healing arts whose abilities have been restricted by drugs, alcohol, mental illness or physical aging. In 1964, Modlin and Montes noted that estimates of the incidence of narcotic addiction in physicians varied from 30 to 100 times that found in the general population.

What may be factors in this condition? The same study found that narcotic addiction ordinarily depends on three conditions: (1) a predisposing personality (doctors often are perfectionistic, find it difficult to accept criticism and often are loners.), (2) the availability of narcotics, and (3) a set of circumstances that brings 1 and 2 together. They further noted that the majority of the 30 physicians studied consistently denied serious addictive difficulties and shared the illusion that they could stop using drugs at any time they wished.

Grateful patients extolling his virtues as a great guy may result in the physician having a low toleration for failure in himself. He may come to feel he should never be irritable, tired, make a mistake, suffer sleeplessness or illness. His spouse may contribute to his depression by criticism, argument and lack of perception and affection in their relationship. One medical school graduating class of 100 students is needed each year just to replace physicians who commit suicide.

What can be done to reduce this waste of talent? The search for answers is continuing and intensifying. Several states now have legislation to guide them. The AMA held a conference in April 1975 to stimulate and encourage action. In 1972 the AMA Council on Mental Health formulated a position statement, later adopted by the Board of Trustees and approved by the House of Delegates. Subsequently, the AMA model law was drafted as a pattern that could be used by states in formulating legislation.

The Impaired Physician, a very helpful booklet containing this model law plus other recommendations for help and treatment and the position statement may be obtained by writing the Department of Mental Health, American Medical Association.

What might be the role of the Auxiliary? Ask your local psychiatrist to give a program for your group in prevention, detection, and treatment. Then take a write-up to your newspaper so the public will be aware of your interest in this area. Be informed on legislation regarding the impaired physician. Perhaps you will be asked to make suggestions or perhaps to work for enactment.

Mrs. Harriette Francis (Gordon)
President Elect
Grand Island, Nebr.

EMERGENCY MEDICAL CARE

The Emergency Medical Care seminar assessed that portion of EMS pertaining to Basic Life Support. Existing facilities and their potential were discussed. The Chicago area was used as an example, as Basic Life Support courses are introduced in the seventh and eighth grades of their public schools.

Medical auxiliaries throughout the country are working with their local heart associations and boards of education to start Basic Life Support courses. They are also helping to continue those programs already in progress. The county, state and national heart associations have several films available for use by those medical auxiliaries that wish to assist in the advancement of this very important aspect of Emergency Medical Service systems.

Mrs. Steve Carveth
Lancaster Co. President Elect
Lincoln, Nebraska

Medicinews

Health systems management program.

Harvard University announces that the 1976 Program for Health Systems Management will be conducted at the Harvard Business School from June 20 to July 30, 1976. Senior managers in health and health-related organizations are eligible to apply.

This will be the fifth session of the intensive six week program for experienced top-level executives in voluntary, public, and investor-owned hospitals; clinics, HMOs, government agencies, educational institutions, fiscal intermediaries, suppliers, large employers, unions, and professional associations.

The program is designed to expand the managerial and problem-solving skills of the participants and to broaden their understanding of the management problems facing institutions throughout the health system. Applicants must be sponsored by their employer organizations. Applications are due by March 15.

The heterogeneous backgrounds of the program participants contribute significantly to the educational experience. As they work together to analyze and solve specific management problems, participants from diverse parts of the health system develop an understanding for the perspectives which their counterparts bring to the same problems.

Over 200 senior managers from health institutions around the world have participated in previous sessions of the Program. A typical class is 30% governmental, 30% voluntary health delivery, 20% educational, 15% corporate, and 5% other health-related organizations.

Professional medical people who hold management positions account for over half of each class. They include M.D.s, nurses, and dentists. The professional training of others typically is in education, hospital administration, law, management, mental health, public health, and public policy.

The Harvard Business School's well-known case method is used to teach the Program, requiring active contributions to and involvement in the learning process by the participants. Courses include financial management, marketing management, control, health economics, legal issues, organizational issues, health services, operations management, labor relations, and institutional policy and strategy.

The Harvard University graduate schools of Business, Medicine, and Public Health are collaborating sponsors of the program. The program faculty includes representatives of the three schools.

The fee is $3,000, including instruction and materials, room and board, and activities. Inquiries should be addressed to:

Assistant Director for Management Programs
Executive Programs in Health Policy and
Management
Harvard School of Public Health
Boston, MA 02115

Medicare.

Through 1965, when Medicare was enacted, it was financing less than half the public bill for health; by 1975, however, the Federal share was more than two thirds.

Retired American physicians organize new association.

American physicians who have retired from practice or are planning for retirement have formed a new society to serve their needs and interests — The American Retired Physicians Association.

The association includes retired and semi-retired physicians and their spouses and widows, age 55 and over. ARPA is incorporated in the State of Illinois as a not-for-profit group. Executive Director is Ralph Creer, former director of the American Medical Association's Department of Scientific Assembly.

ARPA will emphasize projects and areas in which retired physicians may continue to be active in community affairs through educational programs in schools, hospitals and other community institutions.

It also will offer services of direct benefit to the membership, including group tours for travel, insurance, special plans for purchase of major consumer items, and other services.

ARPA will begin publication early in 1976 of a membership newsletter. It will feature news of opportunities to keep active and involved in medical and related projects, proposed group tours, a financial column aimed at physicians considering retirement as well as those already retired, disposition of a practice, wills and investments.

The newsletter will include a section of latest developments in medicine and surgery, presented in brief abstract form for those who wish to keep abreast of their profession but who no longer are interested in intensive study.

Founding directors of the society are Huberta M. Livingstone, M.D., former associate professor of surgery and director of anesthesiology of the University of Chicago; Charles V. Heck, M.D., executive director of the American Academy of Orthopaedic Surgeons, Chicago; and William Smith, director of the Department of Membership Legal Affairs, American Medical Association, as secretary.

ARPA has been awarded a grant from AMA to aid in the association's development. Dues will be $10 per year for physicians and their spouse or their widow. Interested physicians may request application blank or additional information from: American Retired Physicians Association, Suite 906, 400 N. Michigan Avenue, Chicago 60611, (312) 644-3092.

Medicare.

The Department of Health, Education, and Welfare today published final regulations permitting public and non-profit home health agencies to arrange with proprietary agencies for home health services under Medicare.

The home health agencies will be required to assume control and supervision of the services just as if they were provided by their own employees. Until now, public and non-profit home health agencies could arrange for services only with other public and non-profit organizations.

Medicare hospital insurance pays for up to 100 medically necessary home health visits in a benefit period. Also, medical insurance can pay for 100 home health visits in a year after the beneficiary has met the $60 yearly deductible.

Big Balanced Rock, Chiricahua Mountains, Arizona (approx 1,000 tons)

ound useful in the management of vertigo* associated with
ases affecting the vestibular system.
an relieve nausea and vomiting often associated with vertigo*
Jsual adult dosage for Antivert/25 for vertigo:* one tablet t.i.d.
lso available as Antivert (meclizine HCl) 12.5 mg. scored
ets, for dosage convenience and flexibility.
ntivert/25 (meclizine HCl) 25 mg. *Chewable* Tablets for
sea, vomiting and dizziness associated with motion sickness.

F SUMMARY OF PRESCRIBING INFORMATION

NDICATIONS. Based on a review of this drug by the National Academy of
ences—National Research Council and/or other information, FDA has classified
e indications as follows:
Effective: Management of nausea and vomiting and dizziness associated with
otion sickness.
Possibly Effective: Management of vertigo associated with diseases affecting the
stibular system.
Final classification of the less than effective indications requires further
vestigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

ROERIG Pfizer
A division of Pfizer Pharmaceuticals
New York, New York 10017

Antivert®/25
(meclizine HCl) 25 mg. Tablets
for vertigo*

Documented bioavailability...
Regimen flexibility
q.i.d. or q 6h immediately after or between meals

E-Mycin®

erythromycin enteric-coated tablets, Upjohn

250 mg

Formulated for quality...
Priced for economy.

Upjohn

See facing page for brief summary of prescribing information.

J-4889-9

YCIN® TABLETS — 250 mg — For Oral Administration (eryomycin enteric-coated tablets, Upjohn)
lycin Tablets (erythromycin enteric-coated tablets) are spelly coated to protect the contents from the inactivating effects gastric acidity and to permit efficient absorption when adnistered either immediately after meals or when given been meals on an empty stomach.

ications: *Streptococcus pyogenes (group A beta-hemolytic eptococci):* Upper and lower respiratory-tract, skin, and softue infections of mild to moderate severity. Parenteral benzane penicillin G is considered by the American Heart Associa- to be the drug of choice in the treatment and prevention streptococcal pharyngitis and in long-term prophylaxis of umatic fever. When oral medication is necessary (because parenteral route is contraindicated) or if there is known rgy to penicillin, the following recommendations made by American Heart Association apply: 1) Oral penicillin G or V ere no allergy exists)—This is the drug of choice. Give for inimum of 10 days; 2) Erythromycin—Give for a minimum 10 days. A few strains of streptococci resistant to erythrocin have been reported.

ha-hemolytic streptococci (virdans group): Short-term prolaxis against bacterial endocarditis prior to dental or other rative procedures in patients with a history of rheumatic er or congenital heart disease who are hypersensitive to icillin. (Erythromycin is not suitable prior to genitourinary gery where the organisms likely to lead to bacteremia are m-negative bacilli or the enterococcus group of streptococci.)

phylococcus aureus: Acute infections of skin and soft tissue mild to moderate severity. Resistance may develop during atment.

lococcus pneumoniae: Upper respiratory-tract infections ., otitis media, pharyngitis) and lower respiratory-tract intions (e.g., pneumonia) of mild to moderate degree.

coplasma pneumoniae (Eaton agent, PPLO): In the treatment primary atypical pneumonia, when due to this organism.

ponema pallidum: Infections due to this organism.

Corynebacterium diphtheriae and *Corynebacterium minutissimum:* As an adjunct to antitoxin, to prevent establishment of carriers, and to eradicate the organism in carriers. In the treatment of erythrasma.

Entamoeba histolytica: In the treatment of intestinal amebiasis only. Extra-enteric amebiasis requires treatment with other agents.

Listeria monocytogenes: Infections due to this organism.

Contraindication: Contraindicated in patients with known hypersensitivity to erythromycin.

Warning: Safety for use in pregnancy has not been established.

Precautions: Erythromycin is principally excreted by the liver. Caution should be exercised in administering the antibiotic to patients with impaired hepatic function. Surgical procedures should be performed when indicated.

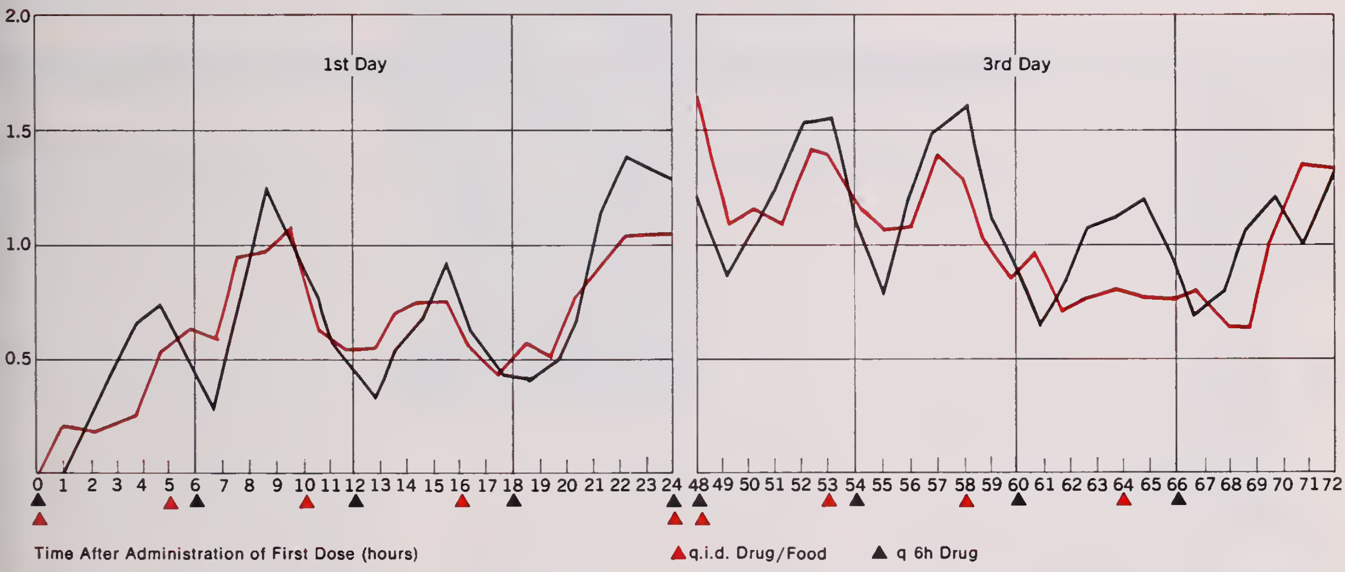
Adverse reactions: The most frequent side effects of erythromycin preparations are gastrointestinal, such as abdominal cramping and discomfort, and are dose-related. Nausea, vomiting, and diarrhea occur infrequently with usual oral doses. During prolonged or repeated therapy, there is a possibility of overgrowth of non-susceptible bacteria or fungi. If such infections occur, the drug should be discontinued and appropriate therapy instituted. Mild allergic reactions such as urticaria and other skin rashes have occurred. Serious allergic reactions, including anaphylaxis, have been reported.

Treatment of overdosage: The drug is virtually nontoxic, though some individuals may exhibit gastric intolerance to even therapeutic amounts. Allergic reactions associated with acute overdosage should be handled in the usual manner—that is, by the administration of adrenalin, corticosteroids, and antihistamines as indicated and the prompt elimination of unabsorbed drug, in addition to all needed supportive measures.

How supplied: 250 mg—in bottles of 100 and in unit-dose packages of 100 enteric-coated tablets. Caution: Federal law prohibits dispensing without prescription.

For additional product information, consult the package insert or see your Upjohn Representative.

emonstrated bioequivalence of E-Mycin taken immediately after meals or between meals.



🟥 *Regimen A* (after meals)—One 250 mg E-Mycin® tablet administered q.i.d. immediately after breakfast, lunch, and dinner, and at bedtime with a snack.

■ *Regimen B* (between meals)—One 250 mg E-Mycin tablet administered q 6h at least two hours after meals.

E-Mycin Study CS076 on file at The Upjohn Company. The study was performed with twenty-two normal male adult volunteers utilizing a randomized two-way complete crossover design.

statistically significant difference in area under e curve was observed from 0-24 hours or 48-72 urs at the 95% confidence level (p>.05).

e data clearly demonstrate that E-Mycin, when ministered q.i.d. immediately after meals, proced average serum levels equivalent to those tained when the drug was administered q 6h at ast two hours after meals.

E-Mycin®
erythromycin enteric-coated tablets, Upjohn
250 mg
Formulated for quality...priced for economy

Upjohn The Upjohn Company, Kalamazoo, Michigan 49001, U.S.A.
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MED 8-7-S

Opinion & Dialogue

Should a specially prepared package insert be made available to patients?

Dr. Alexander M. Schmidt
Commissioner,
Food and Drug
Administration

The idea of a so-called patient package insert has been around for a long time. Many physicians already use written instruction sheets to provide patients with information about the drugs they are taking. And some physicians give verbal instructions; but in too many instances these are what I call eye-glazing exercises. I have seen patients sit with glazed eyes listening to a rapid-fire lecture by a hurried physician who has 20 people out in his waiting room. These patients aren't given sufficient understanding and therefore do not follow instructions. So I think the idea of an official package insert for patients is a good one. Perhaps we should really think of this kind of information simply as an extension of drug labeling.

The benefits of patient involvement

Many physicians may not realize how frequently a patient obtains his drug information from Aunt Tillie or the next door neighbor. And this information is almost always bad or irrelevant to the case at hand Furthermore, the incentive to go along with a prescribed program is slim if the only reading matter the patient receives, along with his prescription, is a bill.

As an educator I am impressed by the principle that the best way to get someone to do something is to involve him in the process. So the

---

Dr. James H. Sammons
Executive Vice President
of the American
Medical Association

I think there are advantages as well as some real disadvantages in a patient package insert. When you begin to use semi-medical or medical terms to describe complications or possible sequelae of disease or treatment, you may frighten the patient—particularly since the more highly sophisticated patient is not the one who is going to read the insert. The patient who will read it is the one most susceptible to fright and confusion by the language.

On the positive side, a package insert will probably give the patient better insight into why he is being treated the way he is, and it may give the physician a little bit more time. But it does not remove from the physician the need or obligation to explain the insert.

Some pitfalls in the inclusion of side effects

Certainly a patient should be warned of the possibility of serious side reactions—to know what the real dangers are. But it doesn't do a bit of good to indicate that a patient on oral penicillin may develop a rash, itching, or a drop in blood pressure. Or that he may faint. I think the real danger is that fright engendered by the insert may possibly outweigh the potential good.

main purpose of drug information for the patient is to get his cooperation in following a drug regimen.

Preparation and distribution of patient drug information

We would hope to amass information from physicians, medical societies, the pharmaceutical industry and centers of medical learning. The ultimate responsibility for uniform labeling must, however, rest with the Food and Drug Administration. There is nothing wrong with this agency saying, "this information is generally agreed upon and therefore it should be used," as long as our process for getting the information is sound.

Distribution of the information is a problem. In great measure it would depend on the medication in question. For example, in the case of an injectable long-acting progesterone, we would think it mandatory to issue two separate leaflets—a short one for the patient to read before getting the first shot and a long one to take home in order to make a decision about continuing therapy. In this case, the information might be put directly on the package and not removable at all. But for a medication like an antihistamine this information might be issued separately, thus giving the physician the option of distribution. This could preserve the placebo use, etc.

It is in the distribution of patient information that the pharmacist may get involved. As professionals and members of the health-care team and as a most important source of drug information to patients, pharmacists should be responsible for keeping medical and drug records on patients. It is also logical that they should distribute drug information to them.

Realistic problems must be considered

We have to expect that the introduction of an information device will also create new problems. First, how can we communicate complex and sophisticated information to people of widely divergent socioeconomic and ethnic groups? Second, what will we say? And third, how can we counteract the negative attitude of many physicians toward any outside influence or input? Hopefully the medical profession will respond by anticipating the problems and helping to solve them. Assuming we can also solve the difficulty of communicating information to diverse groups throughout the United States, our remaining task will be the inclusion of appropriate material.

What information is appropriate?

In my opinion, technical, chemical and such types of material should not be included. And there is no point in the routine listing of side effects like nausea and vomiting which seem to apply to practically all drugs, unless it is common with the drug. However, serious side effects should be listed, as should information about a medication that is potentially risky for other reasons.

Other pertinent information might consist of drug interactions, the need for laboratory follow-up, and special storage requirements. What we want to include is information that will help increase patient compliance with the therapy.

Positive aspects of patient drug information

Labeling medication for the patient would accomplish a number of good things: the patient could be on the lookout for possible serious side effects; his compliance would increase through greater understanding; the physician would be a better source of information since he would be freer to use his time more effectively; other members of the health-care team would benefit through patient understanding and cooperation; and, finally, the physician-patient relationship would probably be enhanced by the greater understanding on the part of the patient of what the physician is doing for him.

Only the doctor can remove that fear by 20 or 30 minutes of conversation.

I'm not suggesting that we withhold any information from the patient because, first of all, it would be totally dishonest and secondly, it would defeat the very purpose of the insert. I do think that a patient on the birth control pill should know about the incidence of phlebothrombosis.

If you're going to tell a patient the incidence of serious adverse reactions, then you have to tell him that a concerned medical decision was made to use a particular medication in his situation after careful consideration of the incidence of complications or side effects.

Emotionally unstable patients pose a special problem

There are patients who, because of severe emotional problems, could not handle the information contained in a patient package insert. Yet if we are going to have a package insert at all, we just can't have two inserts. I think we might simply have to tell the families of these patients to remove the insert from the package.

Legal implications of the patient package insert

Just what effect would a patient package insert have on malpractice? We could try to avoid any legal implications by pointing out that the physician has selected a particular medication because, in his professional judgment, it is the treatment of choice. For instance, you can't tell everyone taking antihistamines not to work just because a few patients develop extreme drowsiness which can lead to accidents. And what about the very small incidence of aplastic anemia rarely associated with chloramphenicol? If, based on sensitivity studies and other criteria, we decide to employ this particular antibiotic, we do so in full knowledge of this serious potential side effect. It's not a simple problem.

How do we handle an insert for medication used for a placebo effect?

With rare exceptions, physicians no longer use medications for a placebo effect. This question does raise the issue of how a patient may react to receiving a medication without a package insert.

Preparation of the package insert

The development of the insert ought to be a joint operation between physicians, the pharmaceutical industry, the A.M.A. and the F.D.A.

I view the A.M.A.'s role as a coordinator or catalyst. It is the only organization through which the profession as a whole, irrespective of specialty, can speak. It has relatively instant access to all the medical expertise in this country. And it can bring that professional expertise together to ensure a better package insert. The A.M.A. can work in conjunction with the industry that has produced the product and which is ultimately going to supply the insert.

I don't think we should rely, or expect to rely, on legislative committees and their nonprofessional staffs to make these decisions when it is perfectly within the power of the two groups to resolve the issues in the very best American tradition—without the government forcing us to do it. I think the F.D.A. has to be involved, but I'd like them to become involved because they were asked to become involved.

Pharmaceutical
Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005

Welcome New Members

J. J. Cannella, M.D.
729 North Custer
Grand Island, Nebraska 68801

S. Dhillon, M.D.
1806 North Cleburn
Grand Island, Nebraska 68801

William L. Fowles, M.D.
727 North Custer
Grand Island, Nebraska 68801

William Gomes, M.D.
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G. J. Hrnicek, M.D.
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Eileen C. Vautravers, M.D.
5145 "O" Street
Lincoln, Nebraska 68510

Carol D. Wolcott, M.D.
1924 Devoe Drive
Lincoln, Nebraska 68520

Between Cases

Disease Of The Month.

"Hot-weather ear."

Department Of Statistics.

There are nearly a million cases of paralysis agitans in the U.S., and 50,000 new cases each year.

Who Did It.

Bernard coined the phrase "internal secretion."

Quote Unquote.

Everything of importance has been said before by somebody who did not discover it.

Whitehead.

Section On Coincidences.

There are 88 notes on the piano, and there are 88 recognized constellations.

That's What It Means.

Scaphoid — shaped like a boat.

Navicular — boat-shaped.

Words I Can Do Without.

Basically, artifact, addendum, Caucasian, victimology, surpassed, pristine, negate.

Quote Unquote.

I told you, you were more than you think you are. And that's all we got, us men on earth, nothing else, just nothing else.

Jessup: The Hot Blue Sea.

I'm Tired Of.

I'm tired of hearing: "That's a good question."

That's a poor answer.

Quote Unquote.

There ought to be a law against anybody going to Europe until they had seen the things we have in this country.

Will Rogers.

With What?

"Pain is not associated."

Sounds Like.

Hepaticola is not a drink.

Quote Unquote.

When a dog runs at you, whistle for him.

Thoreau.

Words, Words, Words.

Muscle weakness. I don't know what else could be weak, not my teeth or hair, or my appendix or even my fatty tissue. I think strength is muscular, and so is weakness, but that's what they say, muscle weakness. It's like hearing he's a little short fellow, or she's a widow lady.

Department Of Specialists.

If you are seen by an ENT surgeon, he will paint your throat, an anesthesiologist will give blocks, and an orthopedist will put you in plaster.

Anon.

Question And Answer.

Q: Is it a constant pain?

A: No, it's not. It just comes in the morning and it goes all night.

The Conclusion.

He is markedly severely handicapped.

Our Favorite Nurse's Notes.

Woke him from his sleep.

There's Just A Plural.

That's biceps and quadriceps. They mean two heads and four heads; there's no bicep and no quadricep. It's like trousers; you'd look singular without them.

Things To Think About.

Suicide is one of the ten leading causes of death in the U.S.

Send It In, It May Be A New Record.

The patient was diuresed of 3,000 liters of fluid in one hour and was digitalized.

The digitalis sounds all right.

—F.C.

In Memoriam

By medicine life may be prolong'd
yet death
Will seize the doctor too.
—Shakespeare

DR. HARLEY J. HOTZ

Doctor Harley J. Hotz died on October 13, 1975, at the age of eighty-four.

Doctor Hotz graduated from Loyola University in Chicago in 1925 and opened his practice in Omaha that same year.

Doctor Hotz served as Board President of St. Catherine Hospital in the early 1960s and served as team physician for Creighton Prep High School for about thirty years. He retired in 1971 and was presented his fifty-year certificate by the Nebraska Medical Association in 1975.

He is survived by his widow, Ruth; brothers, William J., Sr. and Clifford J., both of Omaha; and Albert J., Iowa City, Iowa.

Our Medical Schools

Dr. Bennett authors book.

Donald R. Bennett, M.D., Professor and Chairman of the Department of Neurology at the University of Nebraska College of Medicine and Creighton University School of Medicine and Director of the Creighton-Nebraska Neurology Program, is one of the authors of a new book published by Raven Press of New York, New York. The book is entitled *Atlas of Electroencephalography in Coma and Cerebral Death.*

Otolaryngology: course.

The University of Nebraska Medical Center will offer a course in otolaryngology for the family physician Thursday and Friday, February 5 and 6, at the Center for Continuing Education on the Medical Center campus.

Dr. Anthony Yonkers, chairman of the department of otolaryngology and mixllo-facial surgery, is coordinator of the conference.

Registration fee is $60 for physicians and $40 for nurses and members of other allied health professions.

The Letter Box

11/14/75

dear dr cole

i decided to join your wild notion and do without punctuation just to experience this new sensation

you may eat compulsively when you are annoyed my problem is looking through the nebraska medical journal to see how the ads look which is my responsibility plus a few other things but i always get hooked on your editorials and constantly fight the intense desire to write letters to you after reading them this time i lost or won however you want to look at it

in typing your article without punctuation i found it was easy to eliminate all of it except i really wanted to put in periods

i dont know why you write 30 when you send something to the printer but i know that newspaper writers call exclamation points screamers isnt that a scream

now i think ill go to the library and get better acquainted with e e cummings

constant reader

charlotte mayell

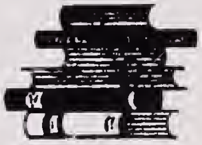
Dear Dr. Cole:

I just had to write and tell you how much I enjoy your editorials each month. I look at all of the state journals, read some things in some of them, but I always look forward to receiving your journal, as your editorials are a breath of fresh air in an atmosphere which frequently needs it.

Best regards.

Sincerely yours,
John B. Thomison, M.D.
Editor

Books



Books received.

Learning to play, playing to learn; prepared by Eli Bower, Ed. D. and others; 158 pages; paperback $4.95; published September 1975 by Human Sciences Press, subsidiary of Behavioral Publications, New York.

Rationale for child care services: programs vs. politics, vol. 1 of Child care: a comprehensive guide; editors, Stevanne Auerbach, Ph.D. with James A. Rivaldo; 215 pages; hard cover $12.95; published September 1975 by Human Sciences Press, subsidiary of Behavioral Publications, New York.

Picture Gallery

DEDICATE VA RESEARCH BUILDING IN OMAHA — Some of the platform guests who helped dedicate a new $2.8 million research building at the Omaha Veterans Administration hospital on October 18, from left, Dr. Robert P. Heaney, Vice President for Health Sciences, Creighton University; Dr. J. M. Holthaus, Dean, Medical School, Creighton University; Odell W. Vaughn, Deputy Administrator of Veterans Affairs, Washington, D.C. [holding dedicatory plaque]; Samuel H. Birdzell, Director, Omaha VA hospital; Dr. Perry G. Rigby, Dean, Medical Center, University of Nebraska, and Dr. Robert D. Sparks, Chancellor, University of Nebraska Medical Center. In his speech, Vaughn said the three VA hospitals in Nebraska would provide in-patient hospital and medical care this year to more than 14,000 veterans, and handle over 80,000 out-patient visits. He said the new 3½-story research building will house some 30 principal investigators and 40 technicians.

Picture Gallery

Area Meetings held on Professional Liability Legislation in November

Harlan L. Papenfuss, M.D., NMA President-Elect, addressing group assembled in York.

Harlan L. Papenfuss, M.D., NMA President-Elect, addressing group assembled in York.

Blaine Y. Roffman, M.D., Member of the NMA Subcommittee on Legislation, addressing York group.

Herbert E. Reese, M.D., Chairman of the NMA Subcommittee on Legislation, addressing group assembled in Scottsbluff.

Herbert E. Reese, M.D., Chairman of the NMA Subcommittee on Legislation, addressing group assembled in Scottsbluff.

Warren G. Bosley, M.D., NMA President, talking with some of the members attending Scottsbluff meeting.

Herbert E. Reese, M.D., Chairman of the NMA Subcommittee on Legislation, addressing group assembled in Sidney.

Doctors Warren G. Bosley and Herbert E. Reese with representatives from Sidney meeting.

Picture Gallery

Herbert E. Reese, M.D., Chairman of the NMA Subcommittee on Legislation, addressing group assembled in North Platte.

North Platte Group.

Robert F. Shapiro, M.D., Member of the NMA Subcommittee on Legislation and the Ad-Hoc Steering Committee on Professional Liability, addressing group assembled in McCook.

McCook Group.

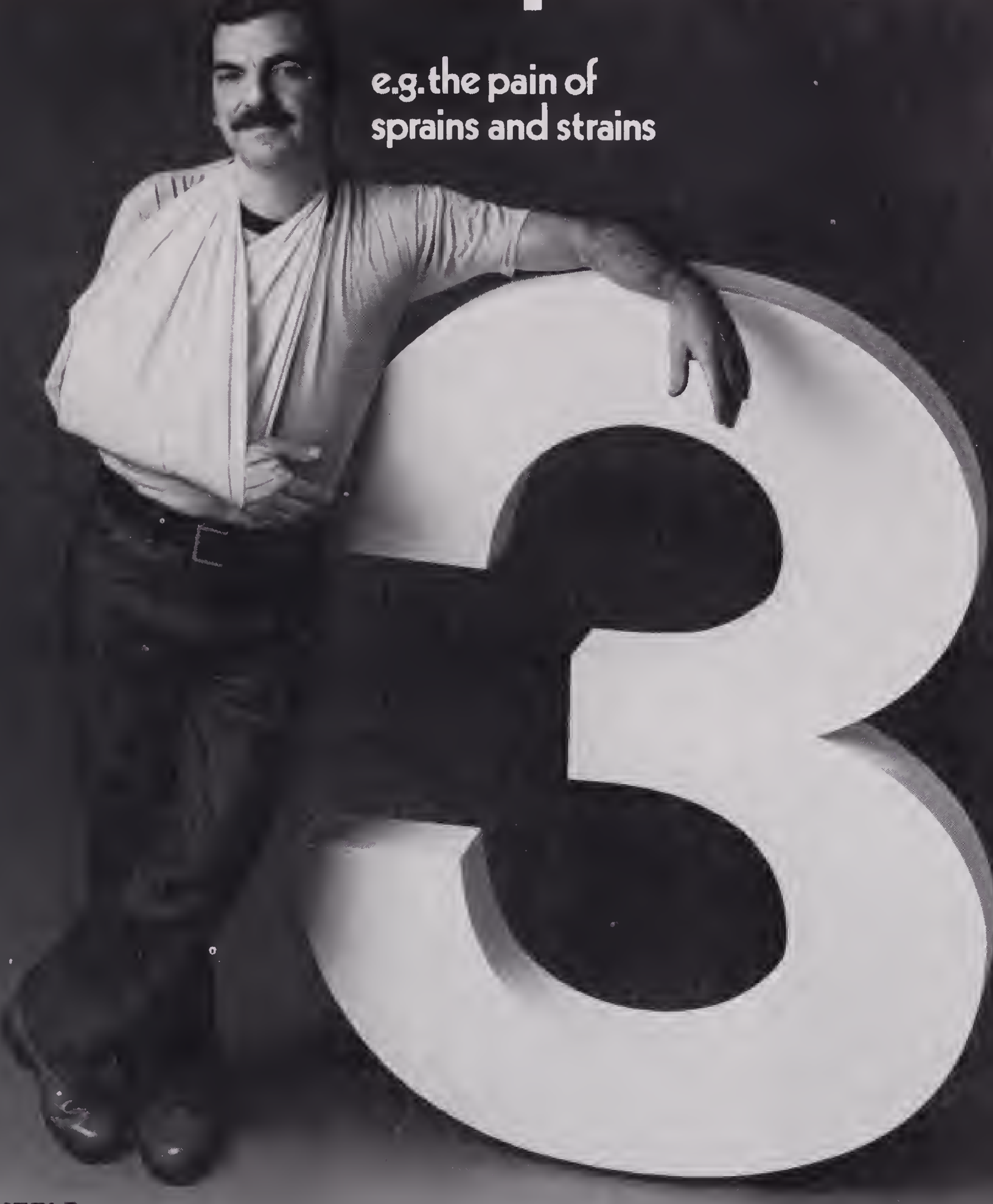
Frank P. Stone, M.D., Member NMA Policy Committee, addressing group assembled in Fairbury.

Blaine Y. Roffman, M.D., Member of the NMA Subcommittee on Legislation, addressing Fairbury group.

Fairbury Group.

Harlan L. Papenfuss, M.D., NMA President-Elect, addressing group assembled in Tecumseh.

No. 3
As potent as the pain it relieves.



e.g. the pain of
sprains and strains

NOT TOO LITTLE

- as potent as the pain you need to relieve in patients with fractures, sprains, strains, wounds, contusions, and the pain of surgical convalescence
- unlike acetaminophen/codeine combinations, it does not sacrifice anti-inflammatory action

NOT TOO MUCH

- potent—yet not excessive
- addiction liability low

NOT TOO EXPENSIVE

- brand-name quality, yet reasonable in cost
- readily available in both hospital and local pharmacies

Ⓒ CONVENIENCE

- telephone Rx in most states, up to 5 refills in 6 months at your discretion (where state law permits)

EMPIRIN® COMPOUND WITH CODEINE NO. 3

codeine phosphate* (32.4 mg) gr ½
Each tablet also contains: aspirin gr 3½, phenacetin gr 2½, caffeine gr ½. *Warning–may be habit-forming

Wellcome
Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Effectiveness across the spectrum of most common forms of insomnia

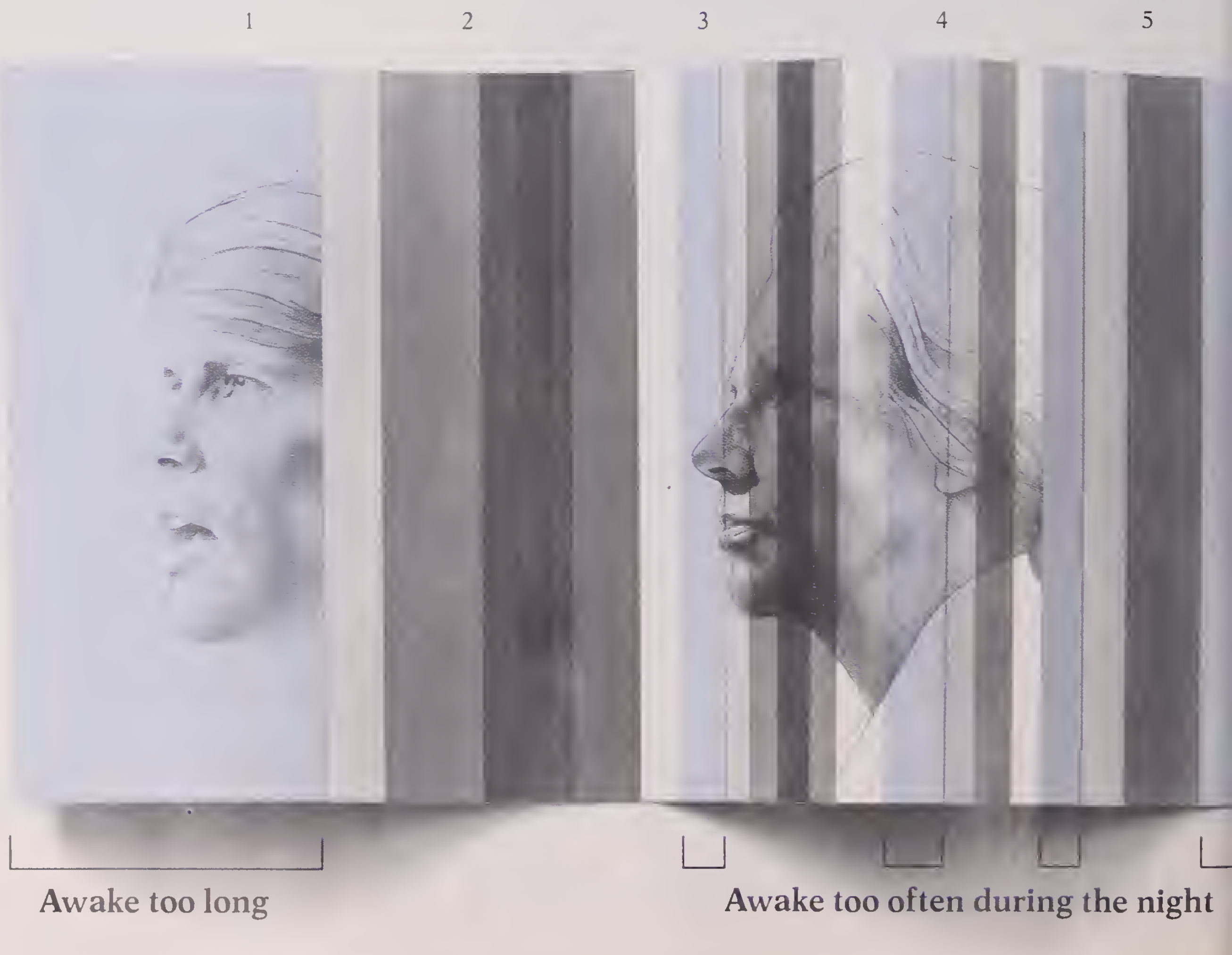
Awake too long, awake too often, awake too early…

These are the most common forms of insomnia, and may occur singly or in any combination. The night of troubled sleep depicted here comprises all three types. As the night progresses from left to right, each sleep stage is identifiable by its own shade of gray. Blue represents "Awake."

As you can see, this hypothetical "patient" takes well over an hour to fall asleep, awakens several times during the middle of the night and awakens too early in the morning.

Sleep Stages

🟦 Awake
⬜ REM
▢ Stage 1
▨ Stage 2
▨ Stage 3
■ Stage 4



Awake too long

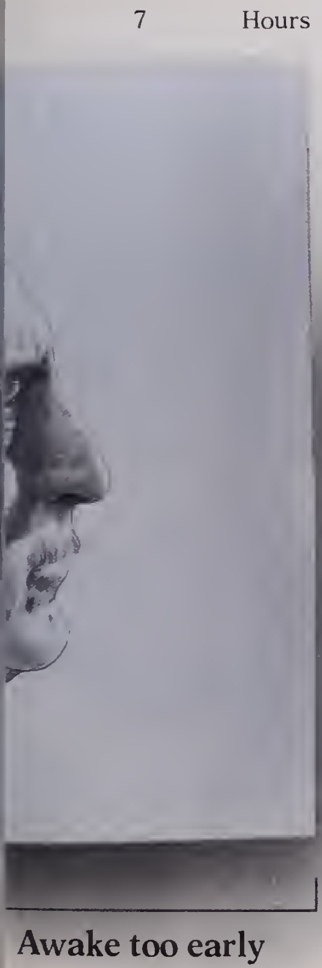
Awake too often during the night

The insomnias most often occurring in young and older adults

For patients with trouble falling asleep (common in young adult insomnia patients), Dalmane (flurazepam HCl) 30 mg provides sleep within 17 minutes, on average. For those with trouble staying asleep or sleeping long enough (common in those over 50), Dalmane offers increased total sleep time with fewer nocturnal awakenings. These clinical results were demonstrated in studies conducted in four geographically separated sleep research laboratories.[1-4]

The relative safety of Dalmane (flurazepam HCl) is well documented

Dalmane (flurazepam HCl) is relatively safe and well tolerated; morning "hang-over" has been infrequent. The usual adult dosage is 30 mg; in elderly or debilitated patients, limit initial dosage to 15 mg to preclude over-sedation, dizziness or ataxia. Caution patients about possible combined effects with alcohol and other CNS depressants.



Broad-spectrum medication for the most common forms of insomnia

Dalmane®
(flurazepam HCl)

One 30-mg capsule *h.s.*— usual adult dosage
(15 mg may suffice in some patients).
One 15-mg capsule *h.s.*— initial dosage for elderly or debilitated patients.

☐ induces sleep rapidly
☐ reduces nighttime awakenings
☐ lengthens total sleep time

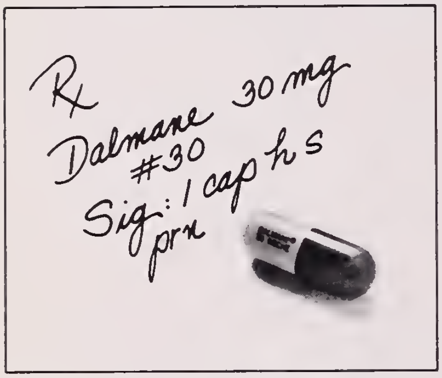
ROCHE

Please see following page for a summary of complete product information.

Broad-spectrum medication for the most common forms of insomnia

Dalmane®

(flurazepam HCl) ⓘⓥ



Objectively proved in the sleep research laboratory, Dalmane

- ☐ induces sleep within 17 minutes, on average
- ☐ reduces nighttime awakenings
- ☐ provides 7 to 8 hours sleep, on average, without repeating dosage

Before prescribing Dalmane (flurazepam HCl), please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

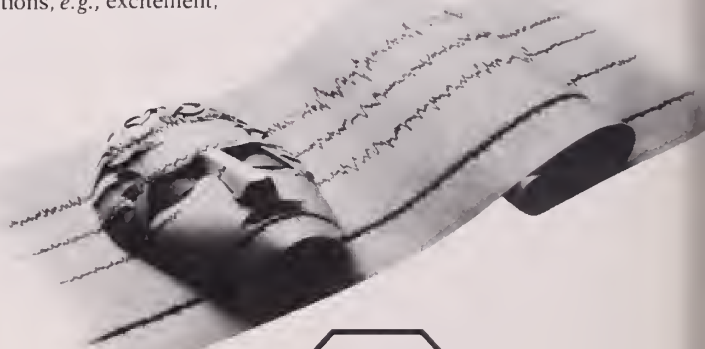
Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum benefic effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

REFERENCES:

1. Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971
2. Frost JD Jr: A system for automatically analyzing sleep. Scientific exhibit at the 24th Clinical Convention of the American Medical Association, Boston, Nov 29-Dec 2, 1970; and at the 42nd annual scientific meeting of the Aerospace Medical Association, Houston, Apr 26-29, 1971
3. Vogel GW: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ
4. Dement WC: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ



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Picture Gallery

Blaine Y. Roffman, M.D., Member of the NMA Subcommittee on Legislation, addressing Tecumseh group.

James H. Dunlap, M.D., Member NMA Policy Committee and Chairman of the NMA Ad-Hoc Steering Committee on Professional Liability, addressing group assembled in Norfolk.

Herbert E. Reese, M.D., Chairman of the NMA Subcommittee on Legislation, addressing Norfolk group.

Norfolk Group.

Harlan L. Papenfuss, M.D., NMA President-Elect, addressing group assembled in Lincoln.

Herbert E. Reese, M.D., Chairman of the NMA Subcommittee on Legislation, addressing Lincoln group.

Lincoln Group.

Picture Gallery

Scientific Sessions Committee Meeting at Doctor Robert M. Stryker's Duck Lodge

Host — Robert M. Stryker, M.D.

Scientific Sessions Committee

Scientific Sessions Committee

I Remember

THE STOPPED HEART

I don't remember what operation we were doing, except that we had the chest open, and the surgeon was very good. I have said for years that there is no such thing as cardiac arrest, unless you figure out what caused it. This may have been a particularly bloody affair, but I cannot remember it too clearly. I do know that the blood pressure suddenly went out or away or just down to zero, or, as we sometimes like to say, nothing over nothing.

We record the patient's blood pressure at least every five minutes during anesthesia, but a good anesthesiologist takes it about once a minute, especially when the chest is open. When it went to zero, I said, loudly enough for the surgeon to hear, I think we've got an arrest.

I know it, he said, a little plaintively, I recall, I've got the heart in my hand. He had the heart in his hand, all right, and he had a hole in the aorta, and there was blood on the ceiling, I seem to recall.

As I said, he was good at his business. He sewed up the hole, I got the blood pressure up, and the patient survived. It was my only cardiac arrest, and we did find the cause, and the patient lived.

If you are an anesthesiologist, you do not worry; you are concerned, but you do not panic. I was concerned.

—F.C.

Coming Meetings

CRIPPLED CHILDREN'S CLINICS —
January 17 — Norfolk, Elks Lodge
January 24 — Scottsbluff, St. Marys Hospital
February 28 — Kearney, Elks Lodge

JOINT 1976 NEBRASKA AND IOWA AAFP Mid-Winter Seminar in Puerto Vallarta, Mexico, January 25-31, 1976. Cost $662.00 per person.

KOCH CENTENNIAL SYMPOSIUM — A two day Medical Horizons Symposium on "Challenges of Ambulatory Care of Tuberculosis" is scheduled February 20-21, 1976 at the Hilton Hotel, Baltimore, Maryland. Speakers include: Wallace Fox, Director of the British Medical Research Council, Tuberculosis and Chest Diseases Unit, London and D. A. Mitchison, Professor of Bacteriology and Director of the Department of Bacteriology, Royal Postgraduate Medical School, London. Apply: David Glasser, M.D., Baltimore City Health Department, Room C-231, Baltimore, Maryland 21202, (301) 396-4436.

SIXTH ANNUAL ASPEN RADIOLOGY CONFERENCE — The sixth annual Aspen Radiology Conference will be held March 1st-5th, 1976 at the Aspen Institute for Humanistic Studies, Aspen, Colorado. The Conference is designed for physicians and scientists interested in diagnostic radiology, nuclear medicine and radiation therapy and will explore the impact of clinical and technological advances on radiologic practice. The topics for discussions will include advances in cardiovascular, gastrointestinal, bone, and neuroradiology, involving a triradiological approach. Each morning will survey the advances in a single radiology subdivision as a refresher course with independent parallel diagnostic, nuclear medicine, and therapy sessions. Instructive cases, illustrating these topics and previewed by the audience, will be presented for open discussion in the afternoons. Further information may be obtained from Emanuel Salzman, M.D., Conference Chairman, Division of Radiology, Beth Israel Hospital, Denver, Colorado 80204.

COURSE IN NEUROTOLOGY — March 22 through 25, 1976. The Department of Otolaryngology of the Abraham Lincoln School of Medicine and the University of Illinois Hospital Eye and Ear Infirmary, University of Illinois at the Medical Center, will conduct a continuing education course in Neurotology, March 22 through 25, 1976. The four day intensive course will offer a didactic and practical review of clinical neurotology under the direction of Nicholas Torok, M.D. It will be held at the Eye and Ear Infirmary and will include basic vestibular physiology and pathophysiology, commonly used testing methods applied in functional examination of the vestibular organ. Various forms of caloric testing procedures will be demonstrated using nystagmography, reading and evaluation of the test results, particularly the nystagmogram, and correlation with audiometric and neurologic findings, final neurotological diagnosis, management and treatment. Patients will be tested by participants and the history, symptoms and test results will be discussed in informal conferences. Enrollment is limited to fifteen. For application forms write to the Department of Otolaryngology, 1855 West Taylor Street, Chicago.

NEBRASKA MEDICAL ASSOCIATION — Annual Session, May 2-5, 1976, Holiday Inn, Kearney, Nebraska.

AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 26 - July 1, 1976, Dallas, Texas.

NEBRASKA MEDICAL ASSOCIATION FALL SESSION — September 30 — October 1 & 2, 1976, Lincoln Hilton Hotel, Lincoln, Nebraska.

AMERICAN MEDICAL ASSOCIATION — 30th Clinical Convention, December 4-8, 1976, Philadelphia, Pennsylvania.

WashingtoNotes

Federal employees.

A Congressional committee trying to ascertain the causes of a large hike in premium costs for the huge Federal Employees Health Benefits Program (FEHB) has been told by the AMA that physicians' long-run prices have paralleled price changes elsewhere in the economy.

William C. Felch, M.D., of Rye, N.Y., a member of the AMA Council on Legislation, told the House Civil Service Subcommittee that professional liability expense "has increased far beyond any other economic indicator."

Premiums of $10,000 are not unusual today, Dr. Felch told the lawmakers. "Amounts in the range of $25,000 to $30,000 in the high risk specialties are not rare, as compared with $6,000-$7,000 a year ago. Some premiums have been reported as high as $45,000 annually."

The other major factors in medical fee rises are the lingering effects of the economic stabilization program and economy-wide inflation, the physician said. Physicians' fees were under price controls from August, 1971 through April, 1974, he noted.

"During the first nine months in 1975, physicians' fees increased 8.4 percent. In the same time period other health care costs were as follows: hospital service charges up 10.2 percent, semi-private room charges up 12.0 percent and operating room charges up 10.4 percent."

Dr. Felch also said utilization of physician services has risen with progress of medical technology, rising incomes, increased insurance coverage, and a rising proportion of elderly in the population. Another reason for increased utilization may be more extensive tests and services as a result of threats of liability lawsuits, he said.

National health insurance (1).

The continual improvement in our health system, with its ever-increasing responsiveness to the people's needs, must not be stifled by adopting foreign-flavored elements into a national health insurance plan, the AMA has told the Congress.

"When considering a national plan for this country, it is necessary to take cognizance of the strengths of our own method of health care delivery . . . this will assure that our excellent system will continue to improve and will not suffer the stifling effects experienced in other countries," AMA president Max H. Parrott, M.D. testified before a subcommittee of the House Ways and Means Committee.

Dr. Parrott and Richard E. Palmer, M.D., of Alexandria, VA, and Chairman of the AMA Board of Trustees, reminded the subcommittee members of the medical profession's national health insurance plan (HR 6222) which builds on the structure of the present system of employer-employee group health insurance plans, mandating each employer to provide comprehensive and catastrophic benefit coverage with the employer picking up at least 65 percent of the cost.

Alluding to other measures aimed at providing catastrophic health insurance alone, Dr. Palmer observed that 135 million Americans under 65 carried major medical insurance in 1974.

National health insurance (2).

The National Health Insurance hearings on Capitol Hill have been marked so far by a notable lack of excitement or sense of urgency. The national news media has ignored the first legislative hearings of the year on NHI, underscoring contentions by many witnesses that the public doesn't rate NHI high on its scale of worries or interests.

Nonetheless, the recently announced decision that the House Interstate and Foreign Commerce Committee's Subcommittee on Health will conduct NHI hearings, brings into the open anew the odd jurisdictional dilemma that perplexes Congress in its quest for action on NHI. Rep. Paul Rogers (D-Fla.) has announced his House Commerce Subcommittee on Health will start NHI hearings.

The Ways and Means Subcommittee on Health, headed by Rep. Dan Rostenkowski (D-Ill.), will end six weeks of hearings on NHI just as Rogers gets started. Since Ways and Means traditionally has had prime jurisdiction, the chief sponsors of the NHI bills in the House are for the most part members of the Ways and Means Committee.

Freedom of information.

Two broad philosophical principles — the right of privacy and the public's right to know — are colliding in federal health programs. The dilemma was pointed up recently when the federal Medicaid program decided the Freedom of Information Act required it to release upon request the names of physicians who collected more than $100,000 yearly from Medicaid payments.

Medicaid officials made clear that the figures were gross receipts and that there was no suggestion of any abuse or impropriety. Dr. Keith Weikel, Medicaid Director, told a small group of newsmen that he was concerned that disclosure of the physicians' names might discourage some physicians from treating Medicaid patients, but he added that the Agency felt the information law required release.

"They all took a vote and you're next."

"You will meet a tall, attractive obstetrician who will refer you to a pediatrician."

Down Memory Lane

1. Psychogenic causes for gastric distress run the entire gamut of human spiritual and mental woes.

2. That high voltage x-ray therapy is the greatest known palliative agent in the treatment of inoperable malignant tumors is now generally admitted by those who have observed its effects.

3. The American Medical Association has 90,000 members.

4. The semi-annual meeting of the Nebraska Association of Medical Women was held over a dinner at the Y.W.C.A., Omaha, Nov. 28.

5. The need for additional hospital facilities at Falls City have become so urgent that a number of physicians are about to establish the Community hospital.

6. Freud sees in every case a possible interpretation of the sexual urge.

7. The greater seriousness of cholecystectomy and bile duct surgery versus cholecystostomy, needs little mention. Many a drainage operation has been done where removal seemed better, but the surgeon lacked the courage of his convictions because of unfavorable past experiences.

8. Every physician in Nebraska who has not already done so, should write letters to the senators and representatives in congress from this state urging that specific legislation be passed to exempt the medical profession and place it on an equal basis with other business.

9. The new Blair Hospital, remodelled and enlarged by Mrs. Washburn was formally opened by a banquet to the members of the Washington County Medical Society, Nov. 24th.

10. An infant subsisting on cow's milk gets less iron than when fed on the breast.

Nebraska State Medical Journal
January, 1926.

ADVERTISERS' INDEX

A

Accent Service Company, Inc. . . . 12

B

Burroughs Wellcome Co. 34A

C

Cooper Laboratories, Inc. 9

D

Donley Medical Supply Co. . . . 11

F

Flint Laboratories 7, 8

K

Kansas Medical Center, University of 6

L

Eli Lilly and Company 16

M

Mallinckrodt, Inc. 5, 13

N

Norfolk Printing Company, Inc. . . . 10

P

Pharmaceutical Manufacturers Association . . . 26D, 27

R

Roche Laboratories . . . 2, 3, 19, 20, 34B, 34C, 34D
Roerig & Co. 26A

U

Upjohn Company (The) 26B, 26C
U.S. Army Corps of Engineers, Omaha District 11

Physicians' Classified

WANTED — Two physicians to take over general practice in growing county seat town. One M.D. died, other leaving for Air Force after 20 years here. Contact: W. H. Berrick, M.D., Box 787, Madison, Nebraska 68748.

OB-GYN. and UROLOGY specialties to join an established successful practice with 16-man multi-specialty group. Excellent group benefits; retirement plan; modern clinic facilities; progressive community with excellent educational system including two colleges; area population 75,000; great recreational facilities; must be board eligible or certified; Contact: Business Manager, The Manitowoc Clinic, 601 Reed Avenue, Manitowoc, Wisconsin 54220.

EMERGENCY DEPARTMENT STAFF PHYSICIAN: 455-bed hospital in suburban Omaha. One of five M.D.'s, New 14,000 sq. ft. department approved with construction to begin in Spring. Visits per month: 2500-3000. Hospital-based specialists: neonatology, pulmonary disease, cardiology, anesthesia, pathology and radiology. Remuneration: $40-60,000 plus good fringes, depending upon experience. Experience in E.D. desired. J. R. McCaslin, M.D., Director, Archbishop Bergan Mercy Hospital, Omaha, Nebraska 68124, (402) 398-6031.

CLINIC AVAILABLE — General practice in furnished clinic. County seat town, SW Nebraska. Three nursing homes in town, good territory. Equipped office available for dentist. Write Box 8, Beaver City, Nebraska 68926.

FAMILY PRACTITIONER WISHES ASSOCIATE who is Board-certified or Board-eligible in family practice to join family practice. Located in Waterloo, Iowa, a northeast Iowa community of 75,000. All records dictated on the Problem Orientated Medical Records System. Contact: Ronald R. Roth, M.D., 611 Black's Building, Waterloo, Iowa 50703.

PSYCHIATRIC RESIDENCY: Vacancies for positions for those who have a regular Iowa License or can obtain one by reciprocity or via the FLEX. Prepare for career in private practice, community clinics or hospital based psychiatry; emphasis on close supervision of intensive individual and group psychotherapy, OPD, Children's Unit, Adolescent Unit, Neurology affiliation with University of Iowa. The stipends are: 1st Year, $20,280; 2nd year, $21,294; 3rd Year, $22,360. Intensity and diversity of training program appreciated best by personal visit. Superintendent, Mental Health Institute, Cherokee, Iowa 51012, Equal Opportunity Employer. Call Collect 712-225-2594.

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FOR ALL THE RIGHT REASONS.

- prompt and specific action
- documented benefit-to-risk ratio
- three dosage strengths to meet most therapeutic needs

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.
Contraindications: Patients with known hypersensitivity to the drug.
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.
Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.
Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.
Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d. Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)
Supplied: Librium® (chlordiazepoxide HCl) *Capsules*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10. Libritabs® (chlordiazepoxide) *Tablets*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.

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chlordiazepoxide HCl/Roche
5 mg, 10 mg, 25 mg capsules

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Librium has an established safety record and a documented benefit-to-risk ratio. And Librium is used concomitantly with such drugs as cardiac glycosides, diuretics, anticholinergics and antacids.

So when you consider antianxiety therapy, consider Librium. It's a good choice. For today. And tomorrow.

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PROVEN ADJUNCT FOR CLINICAL ANXIETY
LIBRIUM® C IV
chlordiazepoxide HCl/Roche

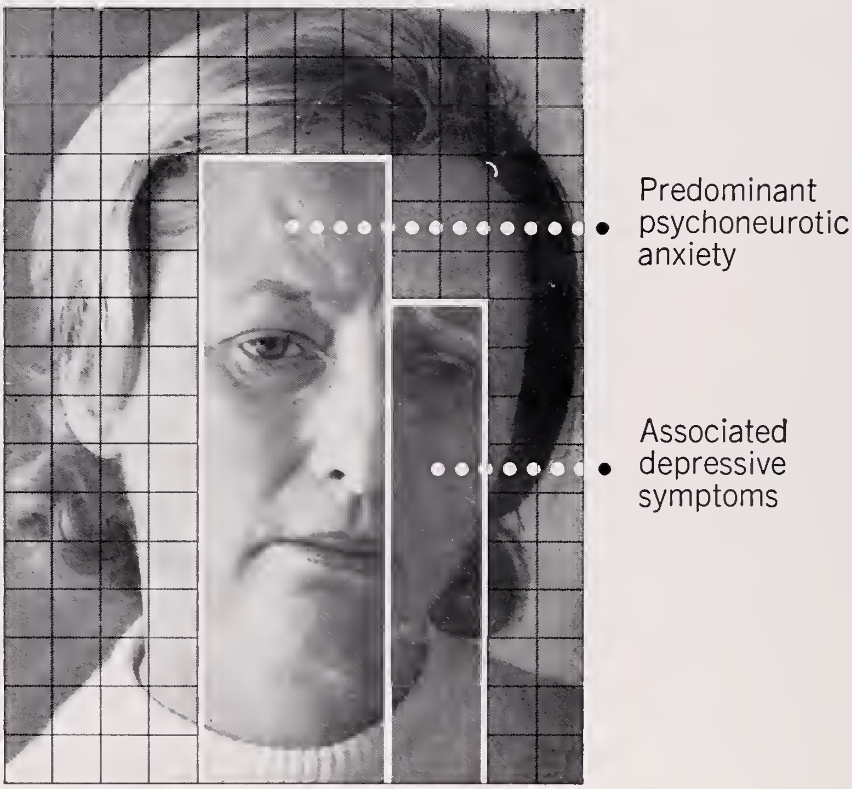
Please see preceding page for summary of product informatio

BALCONY

The Nebraska Medical Journal

February, 1976

Both often


Predominant psychoneurotic anxiety
Associated depressive symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful

respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as the excessive anxiety is relieved, the depressive symptoms associated with it are also often relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.

Valium® (diazepam) Ⓘⓥ

2-mg, 5-mg, 10-mg scored tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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The Nebraska Medical Journal

EDITOR-FRANK COLE, M.D., 1845 "F" St., Apt. 1, Lincoln 68508 FEBRUARY 1976 VOL. 61, NO. 2
PHONE 471-5016

EDITORIALS —

Student Research Day 41
Eight To Ten Is Nine 41
On Big Words 42
On Writing Articles So You Can Read Them 42

ORIGINAL ARTICLES —

The Management of Tachyarrhythmias In the Emergency Room 44
James Morgan, M.D.
Barry S. Dzindzio, M.D.
Alan D. Forker, M.D.

Physicians, Teachers and School Health Education 48
T. Demetri Vacalis, Ph.D.
Samuel I. Fuenning, M.D.
Ian M. Newman, Ph.D.
Gary L. Martin, Ph.D.

Medical Treatment of Lymphomas 53
John R. Feagler, M.D.

Nostalgia — 1975 55
Jane T. Sloan

Mucinous Cystadenoma in an Adolescent: A Case Report 58
S. R. Thomas, M.D.
R. F. Brouillette, M.D.
R. C. Seiler, M.D.

FEATURES —

President's Page 62
The Auxiliary 64
Medicinews 8A

BETWEEN CASES 66

IN MEMORIAM —

Karl S. J. Hohlen, M.D. 67

NEBRASKA —

Welcome New Members 68
Our Medical Schools 69
Picture Gallery 70
State Organizations 22A

DOWN MEMORY LANE 72

THE OTHER STATES —

WashingtoNotes 72
National Organizations 10A

I REMEMBER —

Be Sure It's The Right Leg 74

AROUND THE WORLD —

The Letter Box 74
Coming Meetings 76

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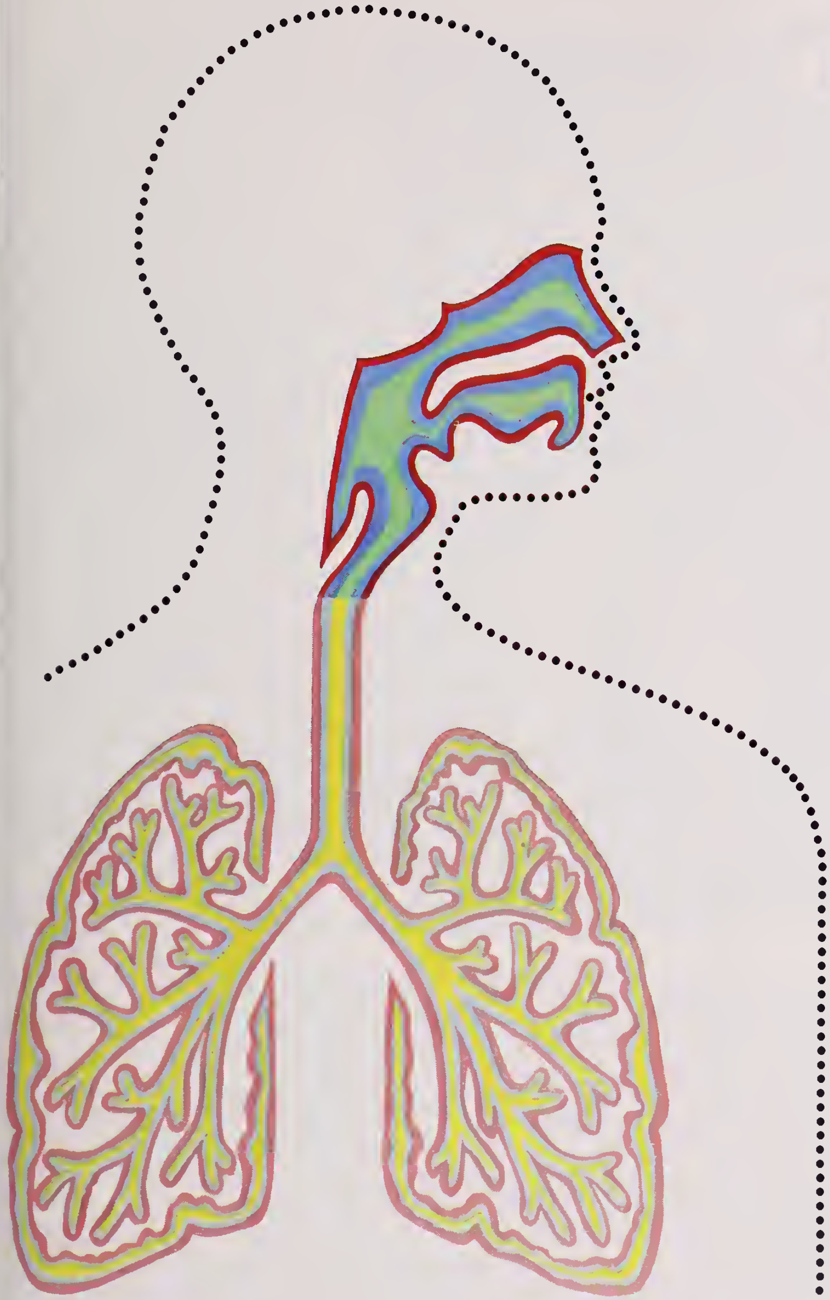

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▣ **RYNATAN®:** Each tablet contains Phenylephrine Tannate, 25 mg.; Chlorpheniramine Tannate, 8 mg.; Pyrilamine Tannate, 25 mg.

Each 5 ml. (1 teaspoonful) RYNATAN® PEDIATRIC SUSPENSION contains Phenylephrine Tannate, 5 mg., Chlorpheniramine Tannate, 2 mg., Pyrilamine Tannate, 12.5 mg CONVENIENT B.I D. DOSAGE for convenience and economy

INDICATIONS: RYNATAN provides symptomatic relief of the coryza and nasal congestion associated with the common cold, other upper respiratory infections and allergic rhinitis. In sinusitis, drainage from the affected sinuses may be improved.

CONTRAINDICATIONS: RYNATAN is contraindicated in those patients who are sensitive to sympathomimetic drugs.

PRECAUTIONS: Use with caution in patients with hypertension, hyperthyroidism, diabetes or coronary artery disease. warn of possible drowsiness in patients who may operate vehicles or machinery.

ADVERSE REACTIONS: Drowsiness and dryness of the mouth are occasionally associated with antihistamine therapy in some individuals.

DOSAGE AND ADMINISTRATION: RYNATAN TABLETS: 1 or 2 tablets every 12 hours

RYNATAN PEDIATRIC SUSPENSION: For children over six years of age, 5 to 10 ml. (1 to 2 teaspoonfuls) every 12 hours: for children two to six years of age, 2.5 to 5 ml. (½ to 1 teaspoonful) every 12 hours; for children under two years of age, 1.7 ml. (⅓ teaspoonful) every 12 hours.

CAUTION: Federal (U.S.A.) law prohibits dispensing without prescription.

▣ **RYNATUSS®:** Each tablet contains Carbetapentane Tannate, 60 mg.; Chlorpheniramine Tannate, 5 mg.; Ephedrine Tannate, 10 mg.; Phenylephrine Tannate, 10 mg.

Each 5 ml. (1 teaspoonful) RYNATUSS® PEDIATRIC SUSPENSION contains Carbetapentane Tannate, 30 mg Chlorpheniramine Tannate. 4 mg. Ephedrine Tannate, 5 mg., Phenylephrine Tannate, 5 mg CONVENIENT B I D DOSAGE for convenience and economy

INDICATIONS: In the treatment of coughs due to the common cold, asthma, and in acute and chronic bronchitis.

CONTRAINDICATIONS: RYNATUSS is contraindicated in those patients who are sensitive to sympathomimetic drugs.

PRECAUTIONS: Use with caution in patients with hypertension, hyperthyroidism, diabetes or coronary artery disease. warn of possible drowsiness in patients who may operate vehicles or machinery

ADVERSE REACTIONS: Drowsiness and dryness of the mouth are occasionally associated with antihistamine therapy in some individuals.

DOSAGE AND ADMINISTRATION:
RYNATUSS TABLETS: Adults — 1 to 2 tablets every 12 hours.

RYNATUSS PEDIATRIC SUSPENSION: For children over six years of age. 5 to 10 ml. (1 to 2 teaspoonfuls) every 12 hours: for children two to six years of age, 2.5 to 5 ml. (½ to 1 teaspoonful) every 12 hours; for children under two years of age, 1.7 ml. (⅓ teaspoonful) every 12 hours

CAUTION: Federal (U.S.A.) law prohibits dispensing without prescription.

The above represents a brief summary. See package inserts for full prescribing information.

A member of the Baseball Hall of Fame discusses 'Baseball and Kids'

ROBIN ROBERTS

Robin Roberts, Major League Baseball pitcher and newly-elected member of the Baseball Hall of Fame, will be one of the highlight speakers at your Annual Session. Plan now to attend. Mr. Roberts has played for the Philadelphia Phillies, Baltimore Orioles, Houston Astros and Chicago Cubs. He won 286 Major League games. Currently, Vice-President for the Investment Management Division of Lehman Brothers in New York City, Mr. Roberts lives with his wife and family of four sons in Fort Washington, Pennsylvania.

Attend the NMA Annual Session, May 2-5

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[GENERAL PRACTICE]
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Excellent opportunity for physician who wants to avoid the pressures of private practice. Armed Forces Examining and Entrance Stations at Omaha, Nebraska and Sioux Falls, South Dakota have immediate openings for physician to conduct physical examinations. Applicants must be fully licensed with priority consideration given US citizens. Full Federal employee benefits — paid vacation, paid sick leave, life insurance, health insurance, retirement plan, and periodic pay increases. Financial assistance for relocation is provided. Applicants should submit SF-171 and WA-198 forms available from: Mr. Jerry A. Krause, U.S. Army Engineer District, Omaha, 6014 U.S. Post Office and Courthouse, Omaha, Nebraska 68102, Telephone No. 402/221-4093.

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Manuscripts to be presented for publication in the JOURNAL should be typewritten, double-spaced, on one side only of firm (not onion skin or flimsy), standard letter size (8½ by 11 in.) white paper. Wide margins (at least 1¼ in on left) should be left free of typing. On the first or title-page should be shown the title of the article, the name (or names) of the author, his degree and other significant credits. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Illustrations should be numbered and their locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be black (India ink) on pure white. Photographs should be on glossy paper and a minimum of about 5 by 7 in. in size. A legend should be provided for each illustration and, preferably, attached to it.

Manuscripts (original, not a carbon) should be sent directly to the Editor at the **Journal's** address.

Letters to the Editor submitted for publication should be prepared as above, and must carry the notation: To be Published.

Reprints should be ordered from the printer, Norfolk Printing Co., Inc., P. O. Box 278, Norfolk, Nebr. 68701.

Famous Fighters

NEOSPORIN® Ointment
(polymyxin B-bacitracin-neomycin)
is a famous fighter, too.

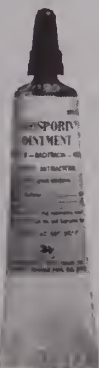
Provides overlapping, broad-spectrum antibacterial action to help combat infection caused by common susceptible pathogens (including staph and strep).

Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

INDICATIONS: Therapeutically (as an adjunct to systemic therapy when indicated) for topical infections, primary or secondary, due to susceptible organisms, as in: • infected burns, skin grafts, surgical incisions, otitis externa • primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection.

Prophylactically, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing. **CONTRAINDICATIONS:** Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components. **WARNING:** Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended. **PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs. **ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Medicinews . . .

Social Security Administration.

The basic premium paid by Medicare beneficiaries for their supplementary medical insurance coverage will increase from the present level of $6.70 a month to $7.20 a month for the 12-month period beginning next July.

The supplementary medical insurance program, also known as Part B, complements the basic hospital insurance part of Medicare by helping to pay physicians' bills and a wide variety of other medical expenses in and out of the hospital. The costs are shared by the participants and the Federal Government.

If there were not an 8 percent limit on the premium increase, rising medical costs would require an "actuarially adequate" premium of $10.70 a month, or $3.50 more than the premium that will actually be charged. The "actuarially adequate" premium represents a 50 percent share of the costs of aged participants.

The cost of the supplementary medical insurance program is expected to increase from about $4.7 billion to $5.7 billion in the following year, the Secretary said. The major factors are projected increase in physicians' fees recognized by Medicare, increases in the number of services rendered, a trend toward more expensive services, and an increase in the cost and use of hospital outpatient services.

Some Part B beneficiaries pay more than the basic premium because they enrolled late or because they withdrew and then re-enrolled. Their premiums also will increase beginning July 1, 1976.

This will be the first increase in the medical insurance premium since July 1, 1974.

KAY CIEL®
(potassium chloride)
ELIXIR
10%

DESCRIPTION:
Each 15 ml. (tablespoonful) contains:
Potassium Chloride ....1.5 g.
(supplying 20 meq.)
Alcohol 4%
in a palatable base. Contains no sugar.

KAY CIEL®
(potassium chloride)
POWDER
Solodose®

DESCRIPTION:
Each *Solodose* packet contains:
Potassium Chloride ....1.5 g.
(supplying 20 meq.)
flavored. Contains no sugar.

INDICATIONS: Treatment and prevention of potassium deficiency occurring especially during thiazide diuretic or corticosteroid therapy, digitalis intoxication, low dietary intake of potassium, or as a result of excessive vomiting and diarrhea and for correction of associated hypochloremic alkalosis.

CONTRAINDICATIONS: Impaired renal function, untreated Addison's Disease, dehydration, heat cramps and hyperkalemia.

WARNINGS: Do not use excessively.

PRECAUTIONS: Administer with caution and adjust to the requirements of the individual patient. The patient should be checked frequently and periodic ECG and/or plasma potassium levels made. Use with caution in patients with cardiac disease. In hypokalemic states, attention should be directed toward the correction of the frequently associated hypochloremic alkalosis. ***Patients should be cautioned to adhere to dilution instructions.***

ADVERSE REACTIONS: Potassium intoxication indicated by listlessness, mental confusion, paresthesia of the extremities, weakness of the legs, flaccid paralysis, fall in blood pressure, cardiac depression, arrhythmias, arrest and heartblock. Vomiting, nausea, abdominal discomfort and diarrhea may occur.

DOSAGE AND ADMINISTRATION: *Elixir:* One tablespoonful (15 ml. supplying 20 meq.) **diluted** in 4 ounces of water or fruit juice twice daily (preferably after a meal), or as directed by physician. *Powder:* Contents of 1 packet dissolved in 4 ounces of water or fruit juice twice daily (preferably after a meal), or as directed by physician.

OVERDOSAGE: In case of excessive use resulting in hyperkalemia or potassium intoxication, discontinue use of potassium chloride administration or take other steps to lower serum levels if indicated.

HOW SUPPLIED: *Elixir:* In bottles of: 473 ml. (16 fl. oz.) ...NDC 0041-0143-16. 3785 ml. (128 fl. oz.)...NDC 0041-0143-28. *Powder:* In boxes of: 30 *Solodose* packets...NDC 0041-0144-30.

143-38R/COS-878

Cooper

Cooper Laboratories, Inc.
Wayne, New Jersey 07470

796 Agents Affecting Volume and Composition of Body Fl
Potassium Depletion 797
"Potassium chloride is preferred to other salts of potassium since, in most hypokalemic states, hypochloremia is also present and chloride ion is needed to allow complete potassium replacement."[1]
"In general, the chloride salt is preferable because of the participation of chloride in the renal conservation of potassium."[2]
"If potassium depletion is accompanied by a deficit of chloride, it may be quite difficult to correct that deficit and dissipate the alkalosis unless adequate quantities of chloride are made available."[3]

We have it on best authority...

KAY CIEL® Elixir

(potassium chloride) 10%

Replaces more than just potassium

Also availabl
KAY CIEL® Powd
Solodose®
(potassium chloride 1.5 g.)
Each convenient packet
containing 20 meq. KCl

1. AMA Drug Evaluations, ed. 2, Publishing Sciences Group, Inc., Acton, Mass., 1973, p. 184.
2. Sandstead, H., in Wintrobe, M.M. *et al.* (Eds.): Harrison's Principles of Internal Medicine, ed. 7, New York, McGraw-Hill Book Company, 1974, p. 441.
3. Welt, L.G., in Goodman, L.S., and Gilman, A. (Eds.): The Pharmacological Basis of Therapeutics, ed. 4, New York, The Macmillan Company, 1970, pp. 798-799

Please see full prescribing information on opposite page.

Medicinews . . .

Money for health.

Health care spending in the United States reached $118.5 billion in fiscal 1975, with public spending increasing at almost twice the rate of the previous year.

A study, "National Health Expenditures," published by the Social Security Administration's Office of Research and Statistics, noted that the $118.5 billion health care bill represented a 13.9 percent increase over the $104 billion spent in fiscal 1974. This was the largest dollar increase in history, largely due to the removal of mandatory economic controls that were in effect in fiscal 1973 and most of fiscal 1974.

Public spending increased by 22.2 percent, compared with a 12.3 percent increase in 1974. This was more than two and one half times the rate of increase in private spending for health care.

Public spending amounted to $49.9 billion, or 42.2 percent of the 1975 total, an increase of 22.2 percent, or $9.1 billion. Private spending — mainly private insurance and out-of-pocket payments — accounted for $68.6 billion, or 57.8 percent of the total health care expenditures for 1975. This portion was up 8.6 percent, or $5.4 billion, over 1974.

Other highlights of the research and statistics note:

— The acceleration in health spending in 1975 coupled with a slowed growth in the Gross National Product resulted in a significant increase in its share of the GNP — 8.3 percent. Had the GNP increased at the 1974 rate, the proportion of health expenditures to GNP would have been about 8 percent. The fiscal 1975 increase came after a 3-year stable level of about 7.8 percent.

— Health spending averaged $547 per person, up from $484 per person in 1974. Direct out-of-pocket payments in 1975 amounted to $155 per person, compared with $146 the previous year.

— Hospital care continued to be the largest expenditure category, amounting to $46.6 billion, or 39 percent of the total spending. Physicians' services accounted for $22.1 billion, or 19 percent.

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“Kid, this stuff is the bananas.”

Experts agree: when it comes to good-tasting banana flavor—without the unpleasant taste of paregoric—the makers of Donnagel®-PG really know their stuff!

For diarrhea
Donnagel-PG Ⓒ
Donnagel with paregoric equivalent

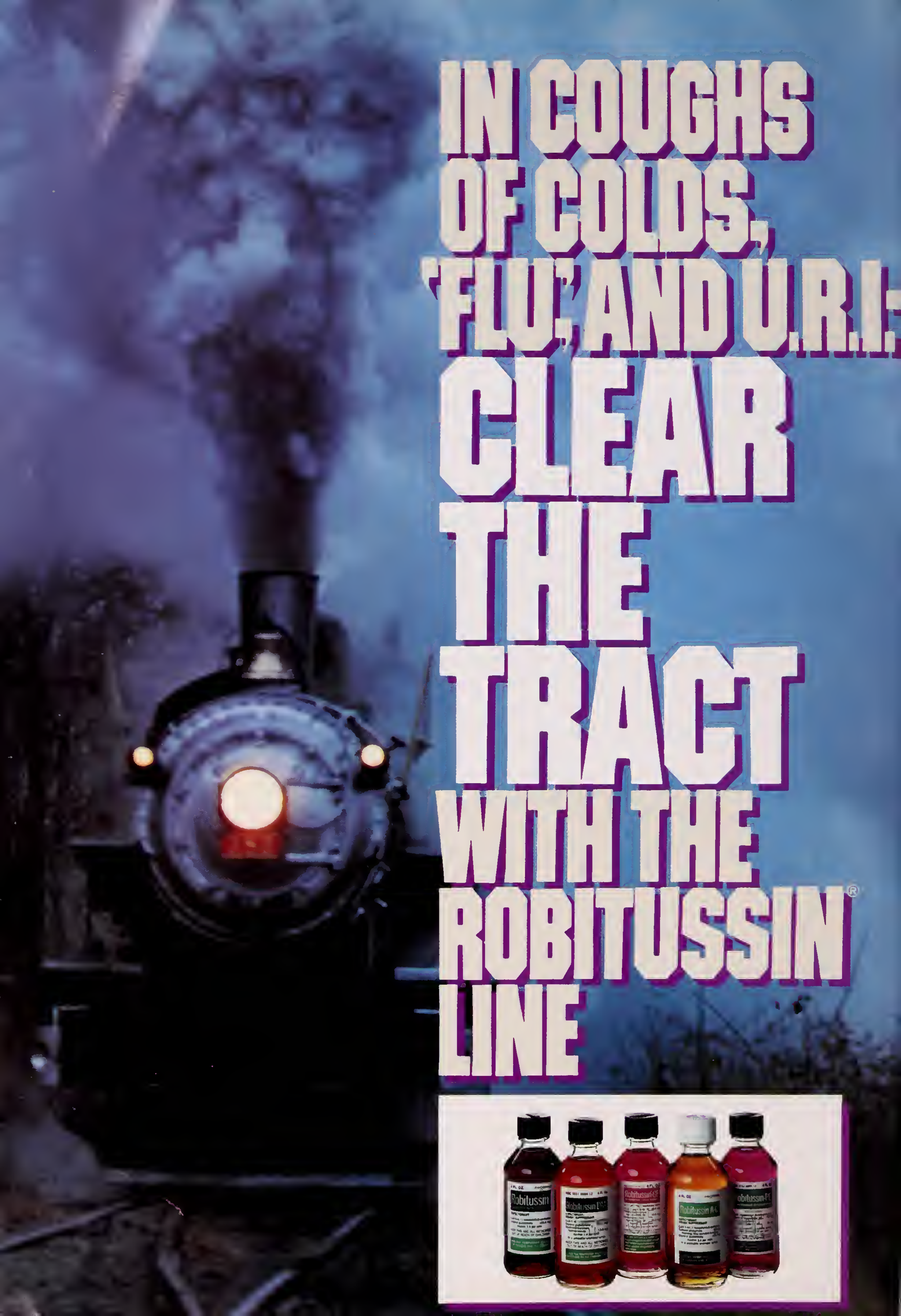
Each 30 cc. contains:

Kaolin	6.0 g.
Pectin	142.8 mg.
Hyoscyamine sulfate	0.1037 mg.
Atropine sulfate	0.0194 mg.
Hyoscine hydrobromide	0.0065 mg.
Powdered opium, USP (equivalent to paregoric 6 ml.) (warning: may be habit forming)	24.0 mg.
Sodium benzoate (preservative)	60.0 mg.

Alcohol, 5%

Now with child-proof closure

A·H·ROBINS
A. H. Robins Company
Richmond, Virginia 23220


IN COUGHS OF COLDS, 'FLU' AND U.R.I.: CLEAR THE TRACT WITH THE ROBITUSSIN® LINE
Robitussin
Robitussin-DM
Robitussin-CF
Robitussin A-C
Robitussin-PE

THE 5 RELIABLE ROBITUSSINS can really help clear the respiratory tract. All contain guaifenesin,* the expectorant that works systemically to help stimulate the output of lower respiratory tract fluid. This enhanced flow of less viscid secretions promotes ciliary action and makes thick, inspissated mucus less viscid and easier to raise.

★formerly named Glyceryl Guaiacolate

For productive and unproductive coughs

ROBITUSSIN®

Each 5 ml teaspoonful contains:

Guaifenesin, NF	100 mg
Alcohol, 3.5%	

For severe coughs

ROBITUSSIN A-C® Ⓒ

Each 5 ml teaspoonful contains:

Guaifenesin, NF	100 mg
Codeine Phosphate, USP (warning: may be habit forming)	10.0 mg
Alcohol, 3.5%	

Non narcotic for 6-8-hr. cough control

ROBITUSSIN-DM®

Each 5 ml teaspoonful contains:

Guaifenesin, NF	100 mg
Dextromethorphan Hydrobromide, NF	15 mg
Alcohol, 1.4%	

Decongests nasal passages and sinus openings as it helps relieve coughs

ROBITUSSIN-PE®

Each 5 ml teaspoonful contains:

Guaifenesin, NF	100 mg
Pseudoephedrine** Hydrochloride, NF	30 mg
Alcohol, 1.4%	

**Formerly contained Phenylephrine Hydrochloride 10 mg

Decongestant action helps control cough and clear stuffy nose and sinuses. Non narcotic.

ROBITUSSIN-CF®

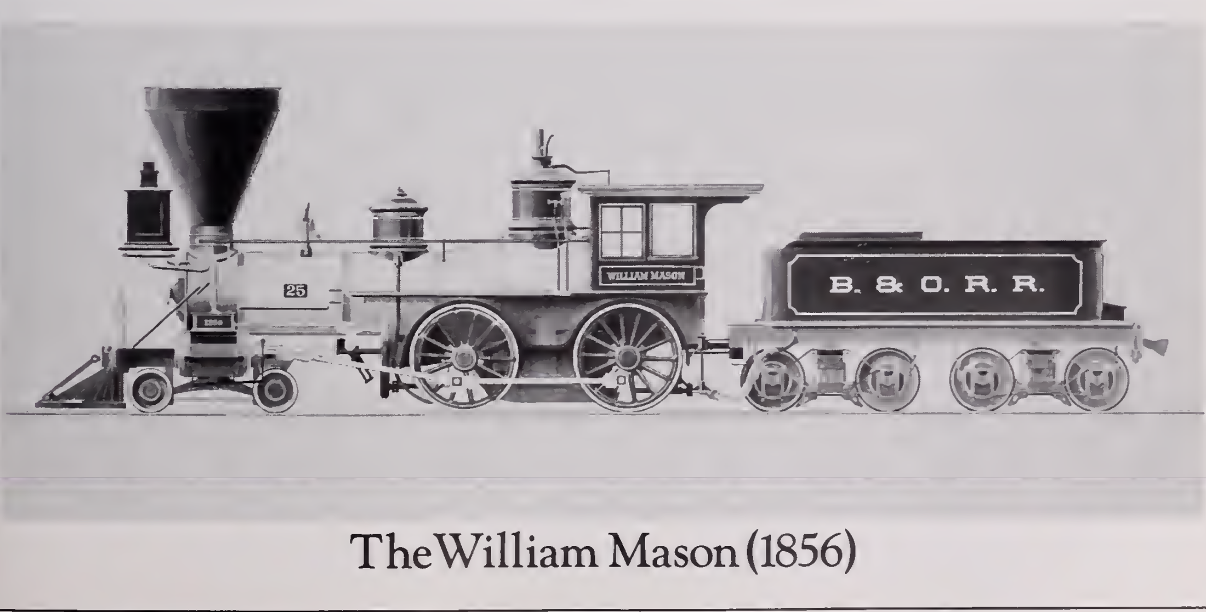
Each 5 ml teaspoonful contains:

Guaifenesin, NF	50 mg
Phenylpropanolamine Hydrochloride, NF	12.5 mg
Dextromethorphan Hydrobromide, NF	10 mg
Alcohol, 1.4%	

All Robitussin formulations available on your Rx or Recommendation.

A. H. Robins Company, Richmond, Va. 23220 A·H·ROBINS

For many years Robins has spotlighted the expectorant action of the Robitussin cough formulations by featuring action photographs of steam engines. In keeping with this tradition, the company recently commissioned a well-known illustrator to render full-color drawings of several classic locomotives... accurate to the minutest detail. The first of the series is now available. To order your print suitable for framing, write "Robitussin Clear-Tract Engine #1" on your Rx pad and mail to "Vintage Locomotives," Dept. T4, A. H. Robins Company, 1407 Cummings Drive, Richmond, Va. 23220.



The William Mason (1856)

Testing in Humans: Who, Where & When.

the weight of ethical opinion:

Few would disagree that the effectiveness and safety of any therapeutic agent or device must be determined through clinical research.

But now the *practice* of clinical research is under appraisal by Congress, the press and the general public. Who shall administer it? On whom are the products to be tested? Under what circumstances? And how shall results be evaluated and utilized?

The Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions which it submitted on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, as its official policy recommendations. Here are the essentials of PMA's current thinking in this vital area.

1. PMA supports the mandate and mission of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research and offers to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its service to the Commission.

2. PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact upon it of existing laws, regulations and procedures.

3. When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on drug and device innovation.

4. PMA proposes that an appropriately qualified medical organization be encouraged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent clinical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct nontherapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.

P·M·A

Pharmaceutical Manufacturers
Association
1155 Fifteenth Street, N.W.
Washington, D. C. 20005

"Doctor Livingstone? Listen, I have such a pain . . ."

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NEBRASKA MEDICAL ASSOCIATION

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South Central Nebraska	Vincent S. Lynn, Geneva	Chas. F. Ashby, Geneva
S.E. Nebraska	Paul M. Scott, Auburn	Theo. C. Kiekhafer, Falls City
S.W. Nebraska	James E. Monaghan, Benkelman	Thomas A. Johnson, Jr., McCook
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DYAZIDE® MAKES SENSE

Trademark

Each capsule contains 50 mg. of Dyrenium® (triamterene, SK&F) and 25 mg. of hydrochlorothiazide.

TRIAMTERENE CONSERVES POTASSIUM WHILE HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE

FOR LONG-TERM CONTROL OF HYPERTENSION*

Serum K+ and BUN should be checked periodically. (See Warnings Section.)

Before prescribing, see complete prescribing information in SK&F literature or *PDR*. The following is a brief summary.

* Warning
This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

*Indications: *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: **Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired.** Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, **check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently**—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

SK&F Co., Carolina, P.R. 00630
Subsidiary of SmithKline Corporation

Effectiveness across the spectrum of most common forms of insomnia

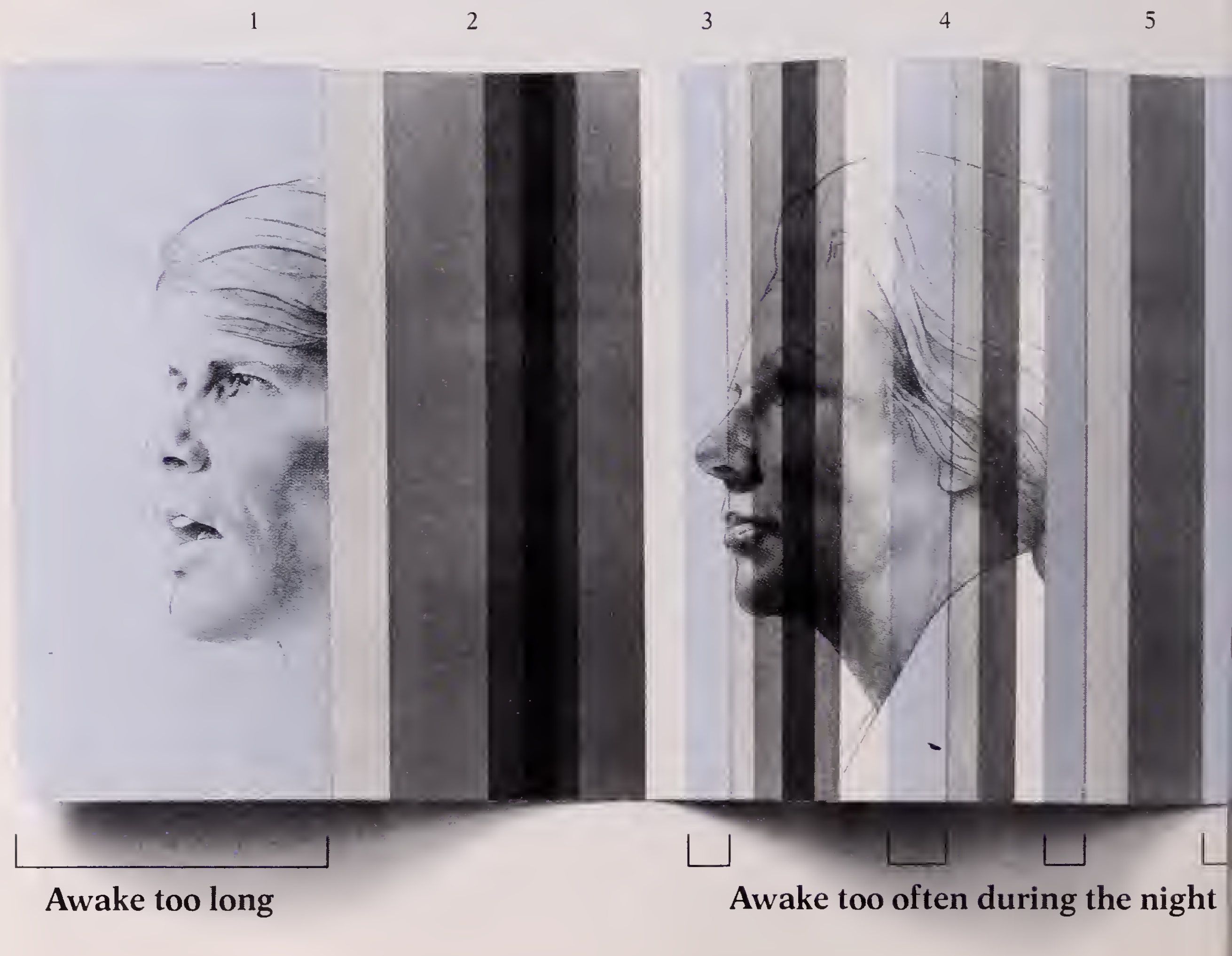
Awake too long, awake too often, awake too early...

These are the most common forms of insomnia, and may occur singly or in any combination. The night of troubled sleep depicted here comprises all three types. As the night progresses from left to right, each sleep stage is identifiable by its own shade of gray. Blue represents "Awake."

As you can see, this hypothetical "patient" takes well over an hour to fall asleep, awakens several times during the middle of the night and awakens too early in the morning.

Sleep Stages

🟦	Awake	▨	Stage 2
⬜	REM	▩	Stage 3
▫	Stage 1	■	Stage 4



Awake too long

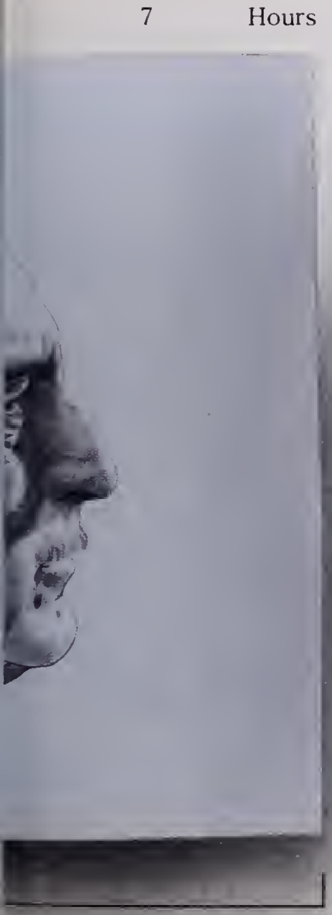
Awake too often during the night

The insomnias most often occurring in young and older adults

For patients with trouble falling asleep (common in young adult insomnia patients), Dalmane (flurazepam HCl) 30 mg provides sleep within 17 minutes, on average. For those with trouble staying asleep or sleeping long enough (common in those over 50), Dalmane offers increased total sleep time with fewer nocturnal awakenings. These clinical results were demonstrated in studies conducted in four geographically separated sleep research laboratories.[1-4]

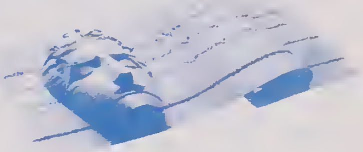
The relative safety of Dalmane (flurazepam HCl) is well documented

Dalmane (flurazepam HCl) is relatively safe and well tolerated; morning "hang-over" has been infrequent. The usual adult dosage is 30 mg; in elderly or debilitated patients, limit initial dosage to 15 mg to preclude over-sedation, dizziness or ataxia. Caution patients about possible combined effects with alcohol and other CNS depressants.



Awake too early

Broad-spectrum medication for the most common forms of insomnia



Dalmane®
(flurazepam HCl)

One 30-mg capsule *h.s.*— usual adult dosage
(15 mg may suffice in some patients).
One 15-mg capsule *h.s.*— initial dosage for elderly or debilitated patients.

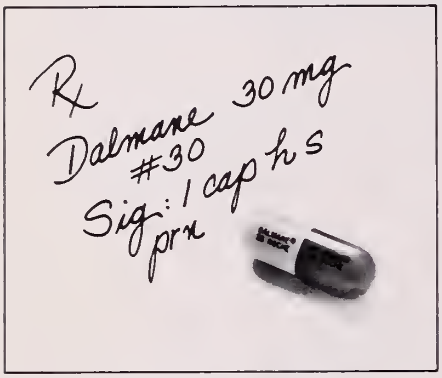
☐ induces sleep rapidly
☐ reduces nighttime awakenings
☐ lengthens total sleep time

ROCHE

Please see following page for a summary of complete product information.

Broad-spectrum medication for the most common forms of insomnia

Dalmane®
(flurazepam HCl) ⒸIV



Objectively proved in the sleep research laboratory, Dalmane

☐ induces sleep within 17 minutes, on average
☐ reduces nighttime awakenings
☐ provides 7 to 8 hours sleep, on average, without repeating dosage

Before prescribing Dalmane (flurazepam HCl), please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

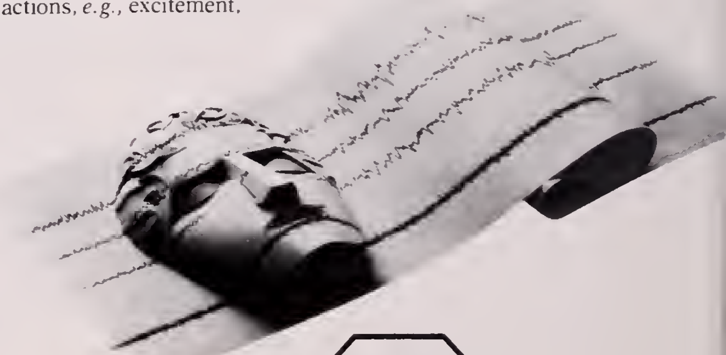
Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum benefic effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

REFERENCES:

1. Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971
2. Frost JD Jr: A system for automatically analyzing sleep. Scientific exhibit at the 24th Clinical Convention of the American Medical Association, Boston, Nov 29-Dec 2, 1970; and at the 42nd annual scientific meeting of the Aerospace Medica Association, Houston, Apr 26-29, 1971
3. Vogel GW: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ
4. Dement WC: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ



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Nutley, New Jersey 07110

DYAZIDE® MAKES SENSE

Trademark

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TRIAMTERENE CONSERVES POTASSIUM WHILE HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE

FOR LONG-TERM CONTROL OF HYPERTENSION*

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Warnings: **Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired.** Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, **check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently**—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

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SK&F Co., Carolina, P.R. 00630
Subsidiary of SmithKline Corporation

Effectiveness across the spectrum of most common forms of insomnia

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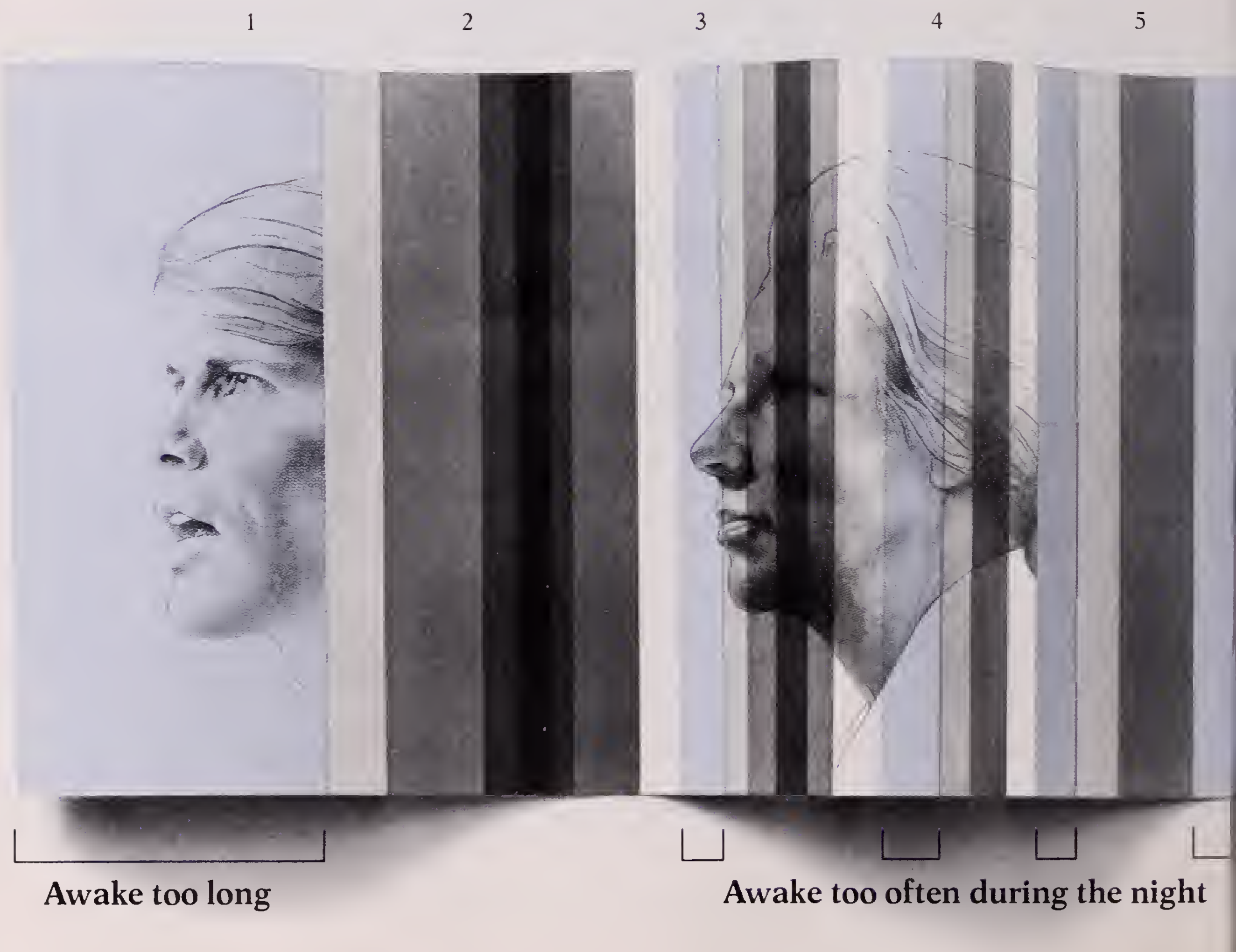
Sleep Stages

🟦 Awake
□ REM
░ Stage 1
▒ Stage 2
▓ Stage 3
■ Stage 4


1
2
3
4
5
Awake too long
Awake too often during the night

The insomnias most often occurring in young and older adults

For patients with trouble falling asleep (common in young adult insomnia patients), Dalmane (flurazepam HCl) 30 mg provides sleep within 17 minutes, on average. For those with trouble staying asleep or sleeping long enough (common in those over 50), Dalmane offers increased total sleep time with fewer nocturnal awakenings. These clinical results were demonstrated in studies conducted in four geographically separated sleep research laboratories.[1-4]

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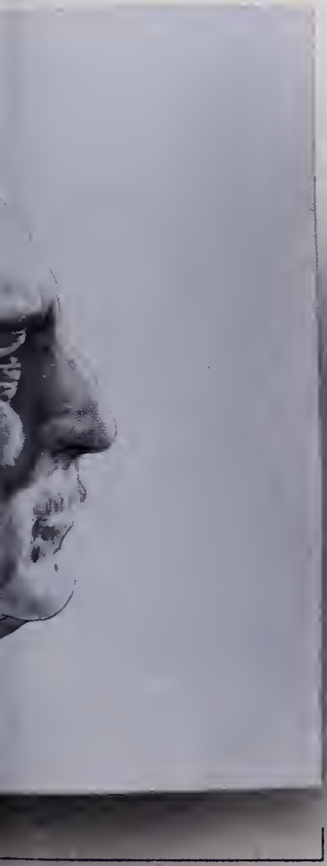
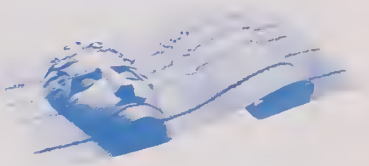
7 Hours



Awake too early

Broad-spectrum medication for the most common forms of insomnia



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(15 mg may suffice in some patients).
One 15-mg capsule *h.s.* — initial dosage for elderly or debilitated patients.

☐ induces sleep rapidly
☐ reduces nighttime awakenings
☐ lengthens total sleep time

ROCHE

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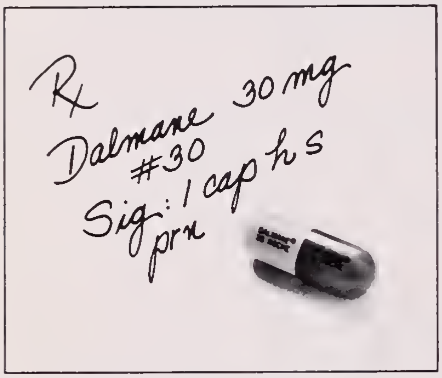
Broad-spectrum medication for the most common forms of insomnia

Dalmane®
(flurazepam HCl) Ⓒ IV



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- ☐ reduces nighttime awakenings
- ☐ provides 7 to 8 hours sleep, on average, without repeating dosage

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Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

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3. Vogel GW: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ

4. Dement WC: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ

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Nutley, New Jersey 07110

Our Medical Schools . . .

Creighton appoints.

Richard Chiroff, M.D., has been appointed Professor and Chairman of the newly created Division of Orthopedic Surgery at the Creighton University School of Medicine and St. Joseph Hospital in Omaha, Nebraska, effective immediately.

Before accepting the position at Creighton, Dr. Chiroff was an Assistant and later an Associate Professor of Orthopedic Surgery at State University of New York, Upstate Medical Center, Syracuse, New York, where he was on the faculty for nearly six years. He received a Bachelor of Medical Science degree from the University of Wisconsin in 1959 and a Doctor of Medicine degree from that same institution in 1962. He interned at Health Center Hospitals, University of Pittsburgh, served as a resident physician at the Mayo Graduate School of Medicine at Rochester, Minnesota, and served two years in the United States Army Medical Service.

U of N appoints.

Dr. Harold Baltaxe will become chairman of the department of radiology at the University of Nebraska Medical Center March 31.

Dr. Baltaxe is now chief of the division of cardiovascular radiology at the New York Hospital — Cornell University Medical College.

A fellow of the American College of Angiology, he also holds memberships in the American College of Radiology and the American Roentgen Ray Society. He has co-authored 61 scientific papers.

A 1952 graduate of the University of Paris, Dr. Baltaxe took his medical degree from the University of Lausanne in Switzerland, where he was graduated first in his class of 1960.

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Lincoln Center Bldg., Room 217, Lincoln 68508

American Diabetes Association — Nebraska Affiliate
Beverly F. Di Mauro, Executive Director
921 Dorcas, Room 221, Omaha 68108

American Lung Association of Nebraska
Delmar R. Serafy, Executive Director
406 W.O.W. Building, Omaha 68102

American Red Cross
1701 "E" St., Lincoln 68508

The Arthritis Foundation, Nebraska Chapter, Inc.
Richard G. Paulson, Executive Director
7764 Dodge, Suite 105, Omaha 68114

United Cerebral Palsy of Greater Omaha, Inc.
Charles F. Lemr, Executive Director
5002 Davenport, Omaha 68132

Creighton University School of Medicine
Joseph M. Holthaus, M.D., Dean
2500 California, Omaha 68131

Cystic Fibrosis Foundation, Nebraska Chapter
Mark Dorcey, Executive Director
Teri Zimmerman, Associate Director
8401 West Dodge Road, Suite 17, Omaha 68114

Dairy Council of Central States
6901 Dodge Street, Room 104
Omaha, Nebraska 68132

Division of Rehabilitation Services for the Visually Impaired
James S. Nyman, Director
1047 South Street, Lincoln 68502

Missouri Valley Dermatologic Society
Richard Q. Crotty, M.D., Secretary
634 The Doctors Building, Omaha 68131

Multiple Sclerosis Society, Lincoln Chapter
Mrs. Harold R. Stoehr, Executive Secretary
Lincoln Center Bldg., Room 317, Lincoln 68508

Muscular Dystrophy Association of America
Ken Kontor, District Director
1906 No. 90th Street, Omaha 68114

National Foundation, Inc. [March of Dimes]
Robin B. Fraser, 1620 "M" St., Lincoln 68508

National Multiple Sclerosis Society —
Nebraska-Iowa Midlands Chapter
Miss Rose Marie Whiteley, Executive Director
521 W.O.W. Bldg., 1319 Farnam St., Omaha 68102

Nebraska Academy of Ophthalmology
Stanley M. Truhlsen, M.D., President
710 The Doctors Bldg., Omaha 68131

Nebraska Academy of Otolaryngology
Ray O. Gillies, Jr., M.D., Secretary
631 Medical Arts Bldg., Omaha 68102

Nebraska Association of Pathologists
Donald A. Dynek, M.D., Sec'y-Treas.
5440 South St., Suite 1300, Lincoln 68506

Nebraska Blue Cross - Blue Shield
Wm. H. Heavey, Executive Director
72nd and Mercy Road, Omaha 68124

Nebraska Chapter — American Academy of Family Physicians
William A. DeRoin, M.D., Secretary-Treasurer
(Mrs.) Lee Trochlil, Executive Secretary
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Nebraska Chapter — American College of Surgeons
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Nebraska Chapter of Myasthenia Gravis Foundation
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105 South 49th St., Omaha 68132

Nebraska Dental Association
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1220 Lincoln Benefit Life Bldg., Lincoln 68508

Nebraska Dietetic Association
Miss Alice Lynn, President
5056 Grover, Omaha 68106

Nebraska Division American Cancer Society
Peter J. Zwier, Executive Vice President
Overland Wolf Centre, Suite 210,
6910 Pacific Street, Omaha 68106

Nebraska Easter Seal Society
Mrs. Letitia Simmons, Executive Director
12177 Pacific St., Omaha 68154

Nebraska Epilepsy League, Inc.
7171 Mercy Road, Suite 129, Omaha 68106

Nebraska Health Care Association
Eugene J. Thompson, Executive Director
Box 30247, 3100 "O" Street, Suite 5, Lincoln 68510

Nebraska Heart Association
Mr. James R. Johnson, Executive Director
3624 Farnam Street, Omaha 68131

Nebraska Hospital Association
Stuart Mount, Executive Director
Box 94833, 1335 "L" St., Lincoln 68509

Nebraska League for Nursing
Mrs. Mary McCarl, Executive Secretary
8501 West Dodge Road, Omaha 68114

NEBRASKA MASTER POISON INFORMATION CENTER
Childrens Memorial Hospital
502 South 44th Avenue, Omaha 68105

Nebraska Medical Association
Kenneth E. Neff, Executive Secretary
1902 First National Bank Bldg., Lincoln 68508

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Kenneth E. Neff, Secretary
1902 First National Bank Bldg., Lincoln 68508

Nebraska Nurses Association
Darlene Cording, Executive Director
Suite 26, 10730 Pacific St., Omaha 68114

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521 The Doctors Bldg., Omaha 68131

Nebraska Pharmaceutical Association
Miss Cora Mae Briggs, Executive Secretary
1001 Anderson Building, Lincoln 68508

Nebraska Psychiatric Institute
Merrill T. Eaton, Jr., M.D., Director
602 South 45th St., Omaha 68106

Nebraska Public Health Association
Ms. Shane McCleod, President
Omaha-Douglas County Health Department
1201 South 42nd St., Omaha 68105

Nebraska Region — American College of Physicians
John D. Hartigan, M.D., Governor for Nebraska
427 Medical Arts Bldg., Omaha 68102

Nebraska Regional Medical Program
530 South 13th Street, Lincoln 68508

Nebraska Rehabilitation Services Division
Garry D. Cartwright, Asst. Commissioner-Director
Dept. of Education
233 South 10th Street, Lincoln 68508

Nebraska Rheumatism Association
Arthur L. Weaver, M.D., President
1512 First National Bank Bldg., Lincoln 68508

Nebraska Society for Internal Medicine
Dan A. Nye, M.D., President
17 West 31st St., P.O. Box K, Kearney 68847

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42nd and Dewey Avenue, Omaha 68105

adjunctive therapy for wound debridement

HELPS TO REMOVE:
- Necrotic Tissue and Associated Odor

HELPS PREPARE WOUND FOR:
- Granulation/Healing
- Granulation/Grafting

CLEANSE WOUND
Thoroughly cleanse and irrigate wound area with sodium chloride or water solutions. Wound MUST be cleansed of antiseptics or heavy-metal antibacterials.

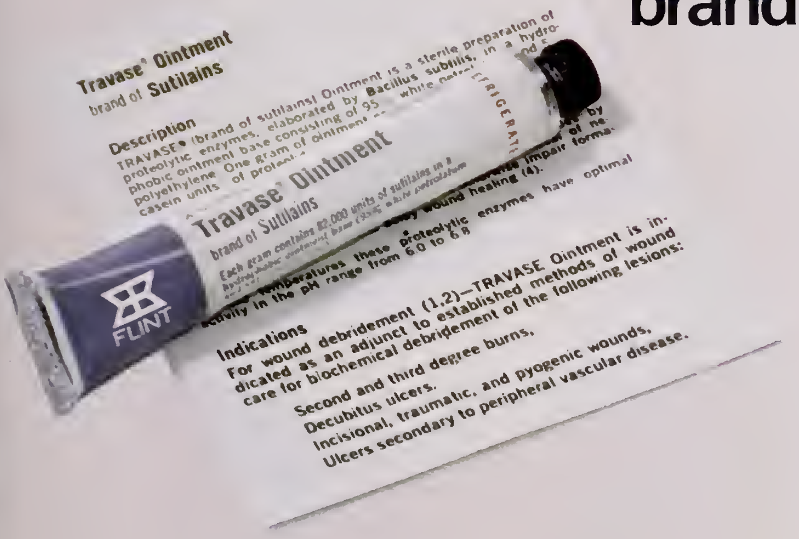
THOROUGHLY MOISTEN
Thoroughly moisten wound area either through tubbing, showering, or wet soaks (e.g., sodium chloride or water solutions).

APPLY ENZYME
Apply a layer of TRAVASE Ointment. Assure intimate contact with necrotic tissue and complete wound coverage.

APPLY MOIST DRESSING
Apply loose moist dressings (most important with dry leathery eschar).

CHANGE DRESSINGS
When changing dressing, gently wipe away the dissolved material. Repeat the procedure, including application of TRAVASE Ointment, 3 to 4 times per day for best results.

Travase® Ointment
brand of Sutilains



Travase® Ointment
brand of **Sutilains**

Description

Indications
For wound debridement (1,2)—TRAVASE Ointment is indicated as an adjunct to established methods of wound care for biochemical debridement of the following lesions:

Second and third degree burns.
Decubitus ulcers.
Incisional, traumatic, and pyogenic wounds.
Ulcers secondary to peripheral vascular disease.

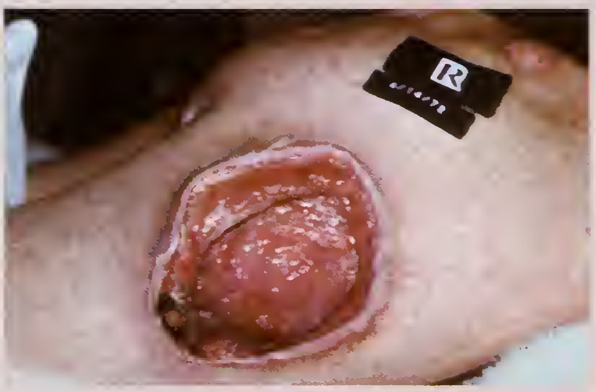
FLINT LABORATORIES
DIVISION OF TRAVENOL LABORATORIES, INC.
Deerfield, Illinois 60015

Please see next page for prescribing information.

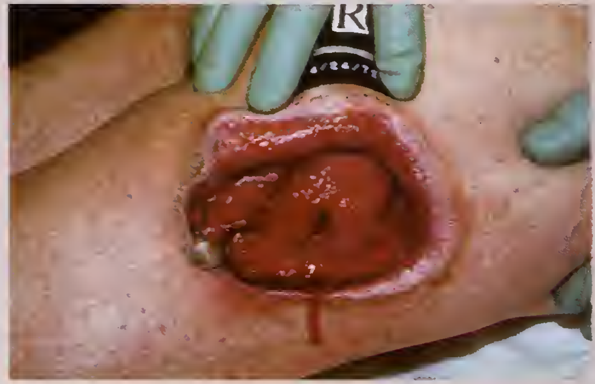
Travase® Ointment brand of Sutilains

ulcers

TERRY V. CARLE, M.D., CLINICAL INSTRUCTOR, DEPT. OF PHYS. MED. & REHAB.,
CRAIG REHABILITATION HOSPITAL, UNIVERSITY OF COLORADO



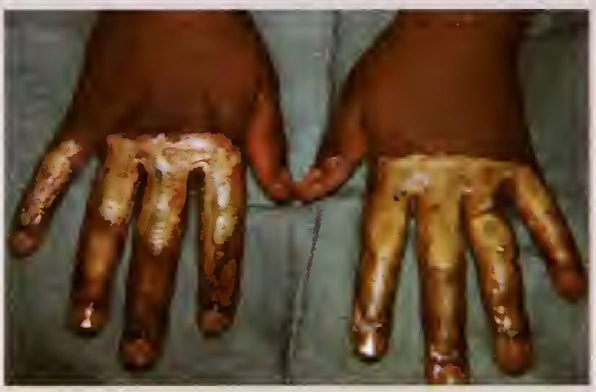
Before treatment, necrotic matter coated the inner surfaces of this decubitus ulcer.



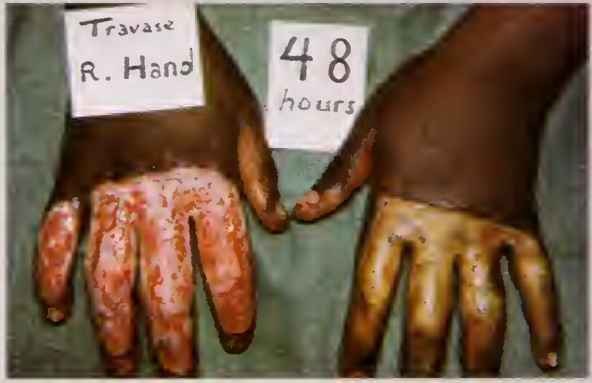
After six days of TRAVASE therapy, debridement is nearly complete and granulation evident.

burns

DALE B. DUBIN, M.D., DIPLOMATE,
AMERICAN BOARD OF PLASTIC SURGERY, TAMPA, FLORIDA



Before treatment . . .



48 hours following treatment with TRAVASE Ointment on right hand; left hand is control.

Travase® Ointment

(brand of Sutilains)

Indications: For wound debridement, TRAVASE Ointment is indicated as an adjunct to established methods of wound care for biochemical debridement of the following lesions:

Second and third degree burns,
Decubitus ulcers,
Incisional, traumatic, and pyogenic wounds,
Ulcers secondary to peripheral vascular disease.

Contraindications: Application of TRAVASE Ointment is contraindicated in the following conditions:

Wounds communicating with major body cavities,
Wounds containing exposed major nerves or nervous tissue,
Fungating neoplastic ulcers,
Wounds in women of child-bearing potential—because of lack of laboratory evidence of effects of TRAVASE upon the developing fetus.

Warning: Do not permit TRAVASE Ointment to come into contact with the eyes. If contact is made, immediately rinse with copious amounts of water, preferably sterile.

Precautions: A moist environment is essential to optimal activity of the enzyme. Enzyme activity may also be impaired by certain agents (see package insert). Although there have been no reports of systemic allergic reaction in humans, studies have shown that there may be an antibody response in humans to absorbed enzyme material.

Adverse Reactions: Consist of mild, transient pain, paresthesias, bleeding and transient dermatitis. Pain usually can be controlled by administration of mild analgesics. Side effects severe enough to warrant discontinuation of therapy occasionally have occurred.

If bleeding or dermatitis occurs as a result of the application of TRAVASE Ointment, therapy should be discontinued. No systemic toxicity has been observed as a result of the topical application of TRAVASE Ointment.

DOSAGE AND ADMINISTRATION: STRICT ADHERENCE TO THE FOLLOWING IS REQUIRED FOR EFFECTIVE RESULTS OF TREATMENT:

1. Thoroughly cleanse and irrigate wound area with sodium chloride or water solutions. Wound MUST be cleansed of antiseptics or heavy-metal antibacterials which may denature enzyme or alter substrate characteristics (e.g., hexachlorophene, silver nitrate, benzalkonium chloride, nitrofurazone, etc.).
2. Thoroughly moisten wound area either through tubbing, showering, or wet soaks (e.g. sodium chloride or water solutions).
3. Apply TRAVASE Ointment in a thin layer assuring intimate contact with necrotic tissue and complete wound coverage extending ¼ to ½ inch beyond the area to be debrided.
4. Apply loose wet dressings.
5. Repeat entire procedure 3 to 4 times per day for best results.

FLINT LABORATORIES
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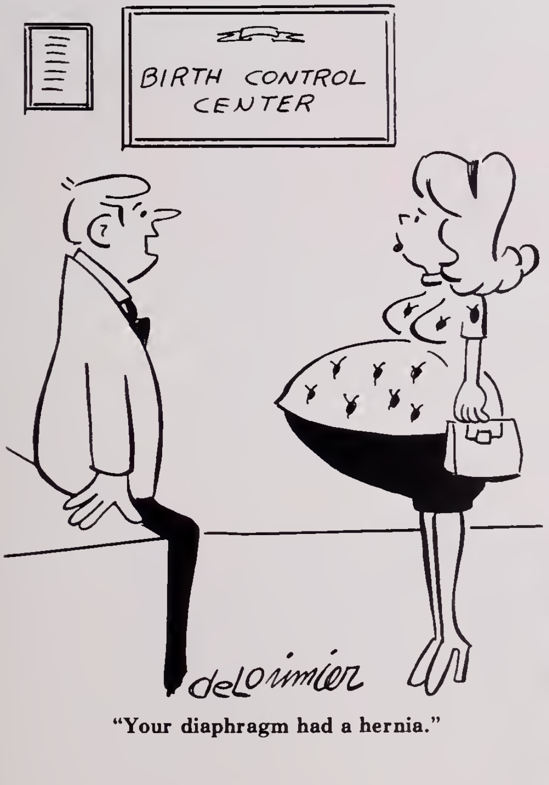
Deerfield, Illinois 60015

PSRO.

Physicians in some larger states containing more than one Professional Standards Review Organization area may have a chance to choose a single, statewide plan under legislation approved by the Senate Finance Committee. Texas, Louisiana and possibly some other states would qualify, the Health, Education and Welfare Department said.

The amendment by Sen. Lloyd Bensten (D-Texas) applies to states that have been divided into PSRO areas, and where no conditional PSROs have yet been designated. The HEW Department would poll the physicians in the areas to determine their preference for a local or a state-wide PSRO. If a majority of physicians in each area approve the state-wide plan, the verdict would have to be accepted by HEW.

The Texas Medical Association and other state societies, as well as the AMA have fought for the rights of larger states to become single PSRO areas, but the HEW Department turned down the appeals on grounds PSROs were intended to be primarily local. As a result, large population states were divided into several PSRO areas.



"Your diaphragm had a hernia."

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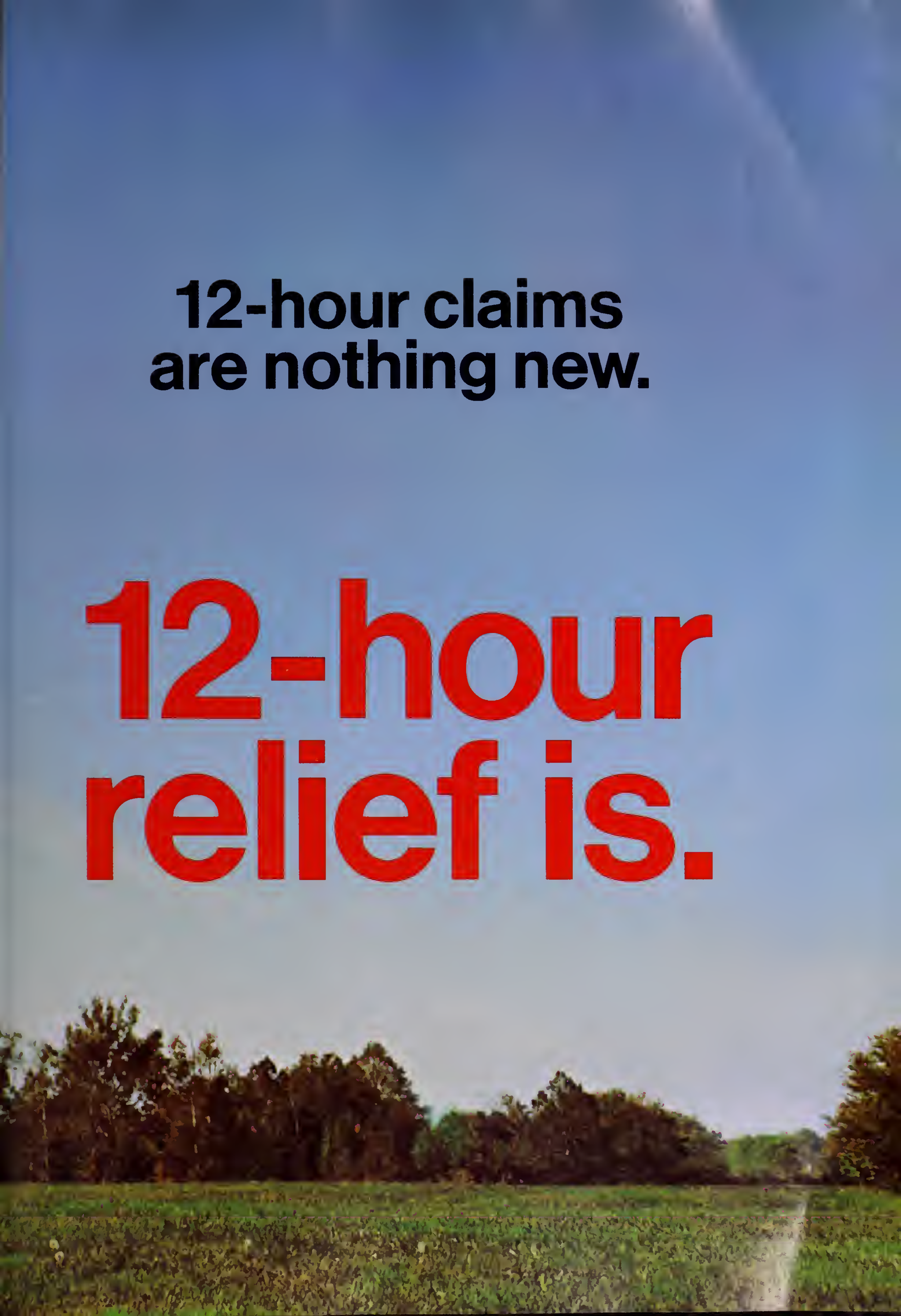
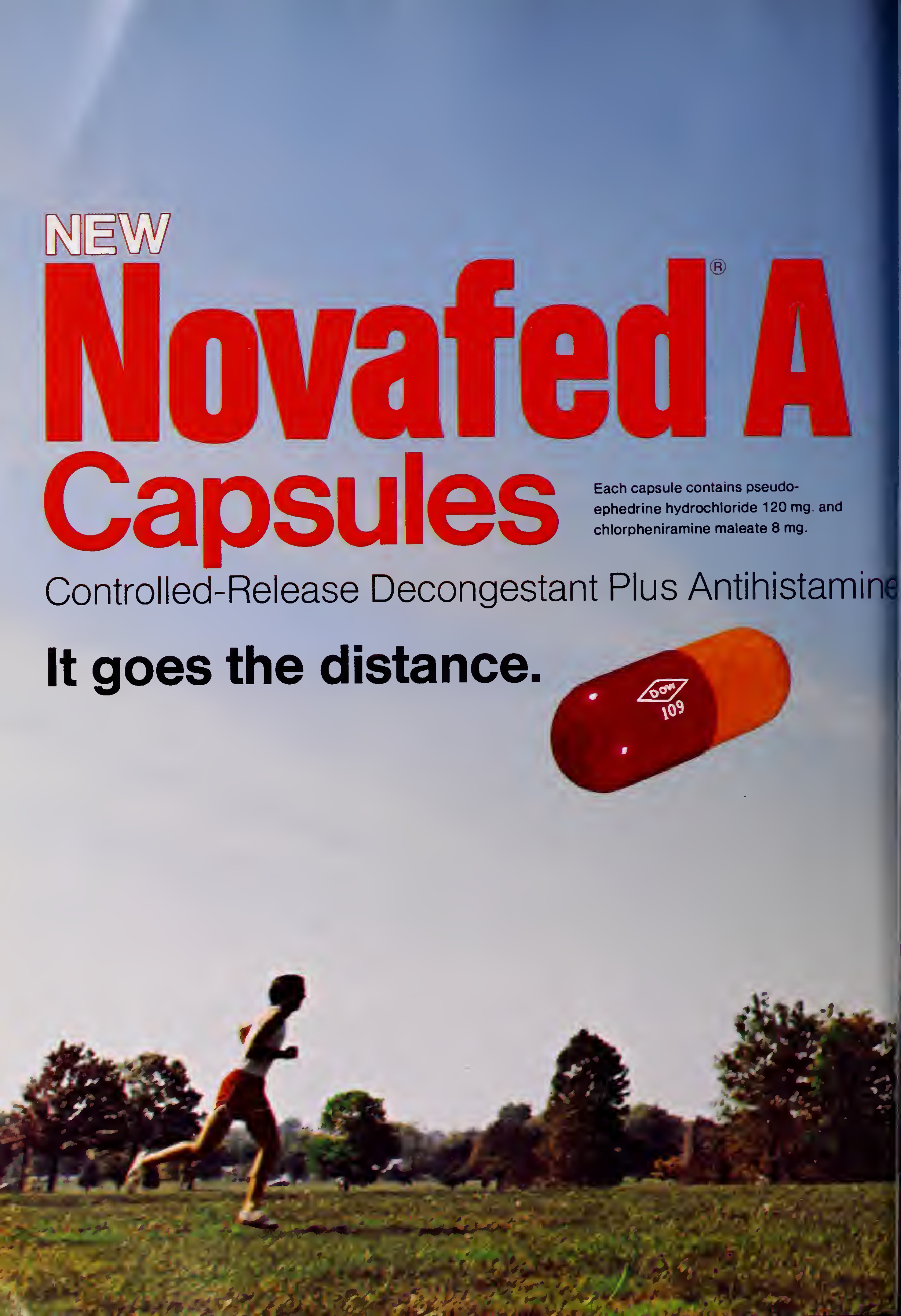

12-hour claims
are nothing new.
12-hour
relief is.



NEW

Novafed® A

Capsules

Each capsule contains pseudoephedrine hydrochloride 120 mg. and chlorpheniramine maleate 8 mg.

Controlled-Release Decongestant Plus Antihistamine

It goes the distance.

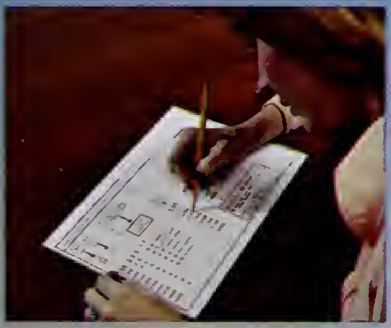
Clinical studies confirm full 12-hour effectiveness.

For years, patients have heard of drugs providing long-lasting relief. But after six or eight hours, they often run out of relief. And it's too soon to take the next dose.

Now, with Novafed A, Dow introduces a prescription capsule with 12-hour effectiveness in relieving allergy and hay fever symptoms. Placebo-controlled clinical studies show that the high level of decongestant in Novafed A provides relief for as long as 12 hours. At the same time, its antihistamine relieves the patient's itchy eyes and runny nose *without* the excessive dryness of anticholinergic agents.

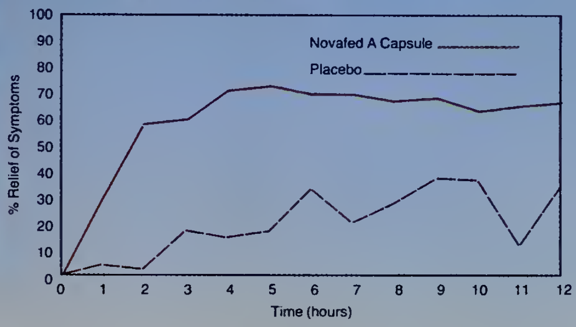
Prompt onset of effect is followed by full 12-hour relief.

(Please refer to the following page for bioavailability studies and prescribing information.)



Patients with severe pollen allergies were tested during hay fever season in a countryside environment and asked to rate severity of five different symptoms on a scale of 1 to 4.

Clinical Study: Degree of Relief from Itchy Eyes and Nose and Throat, Watery Eyes, Runny Nose*



*Unpublished data, Medical Department Files, Dow Pharmaceuticals, The Dow Chemical Company, Indianapolis, Indiana.

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NEW

Novafed® A Capsules

Each capsule contains pseudoephedrine hydrochloride 120 mg. and chlorpheniramine maleate 8 mg

Controlled-Release Decongestant Plus Antihistamine

It goes the distance.

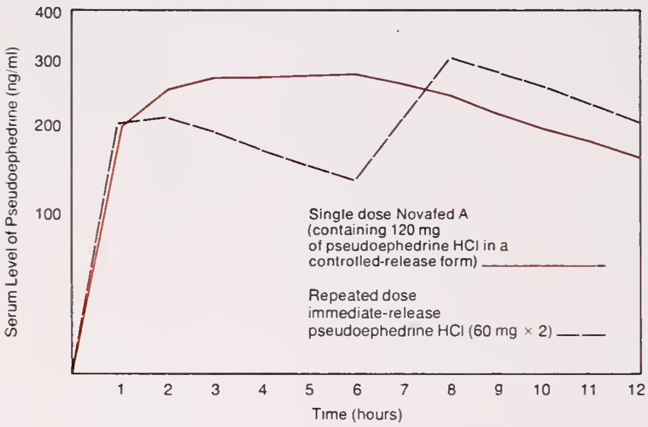
Prompt onset and sustained serum levels over 12 hours.

A bioavailability study confirmed that the sustained 12-hour action of Novafed A was comparable to that of immediate-release medication taken at 6-hour intervals.

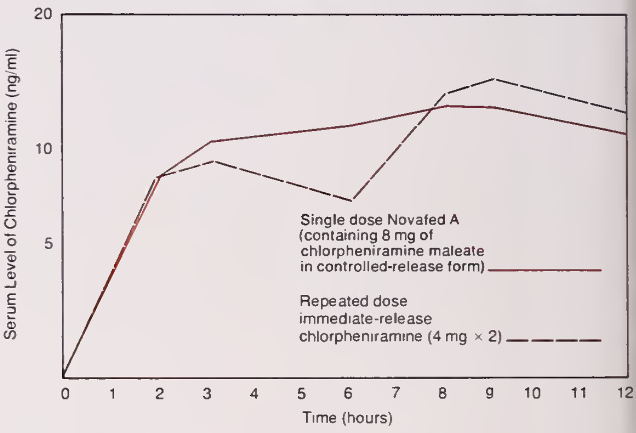
The chart at the left shows the serum levels of pseudoephedrine. Initial serum levels following one Novafed A Capsule were comparable to those following a single dose of 60 mg. pseudoephedrine hydrochloride in an immediate-release form. Serum levels of pseudoephedrine over a 12-hour period following a single dose of Novafed A were also comparable to those obtained by an immediate-release form taken every 6 hours.

The chart at the right shows the serum levels of chlorpheniramine. Initial serum levels following one Novafed A Capsule were comparable to those following a single dose of 4 mg. chlorpheniramine maleate in an immediate-release form. Serum levels of chlorpheniramine over a 12-hour period following a single dose of Novafed A were also comparable to those obtained by an immediate-release form taken every 6 hours.

Comparison of Mean Serum Levels of Pseudoephedrine Following Novafed A and an Immediate-Release Reference Formulation*



Comparison of Mean Serum Levels of Chlorpheniramine Following Novafed A and an Immediate-Release Reference Formulation*



*Unpublished data, Medical Department Files, Dow Pharmaceuticals, The Dow Chemical Company, Indianapolis, Indiana.

DESCRIPTION: Each NOVAFED A capsule contains 120 mg. of pseudoephedrine hydrochloride and 8 mg. of chlorpheniramine maleate. The specially formulated pellets in each capsule are designed to provide continuous therapeutic effect for about 12 hours. Nearly one-half of the active ingredients is released soon after administration and the remainder is released slowly over the remaining time period.

ACTIONS: NOVAFED A combines the action of a nasal decongestant, pseudoephedrine hydrochloride, and an antihistamine, chlorpheniramine maleate. These ingredients are combined to provide prompt and sustained nasal and upper respiratory decongestant and antihistaminic action.

INDICATIONS: NOVAFED A is indicated for the relief of nasal congestion and eustachian tube congestion associated with the common cold, sinusitis and acute upper respiratory infections. It is also indicated for perennial and seasonal allergic rhinitis, vasomotor rhinitis, allergic conjunctivitis due to inhalant allergens and foods and for mild, uncomplicated allergic skin manifestations of urticaria and angioedema. Decongestants in combination with antihistamines have been used for many years to relieve eustachian tube congestion associated with acute eustachian salpingitis, aerotitis media, acute otitis media and serous otitis media. NOVAFED A may be given concurrently, when indicated, with analgesics and antibiotics.

CONTRAINDICATIONS: Symphathomimetic amines are contraindicated in patients with severe hypertension, severe coronary artery disease, and in patients on MAO inhibitor therapy. Antihistamines are contraindicated in patients with narrow-angle glaucoma, urinary retention, peptic ulcer, during an asthmatic attack, and in patients receiving MAO inhibitors.

Children under 12: NOVAFED A controlled-release capsules should not be used in children less than 12 years of age.

Nursing Mothers: Pseudoephedrine is contraindicated in nursing mothers because of the higher than usual risk for infants from sympathomimetic amines.

Hypersensitivity: This drug is contraindicated in patients with hypersensitivity or idiosyncrasy to sympathomimetic amines or antihistamines. Patient idiosyncrasy to adrenergic agents may be manifested by insomnia, dizziness, weakness, tremor or arrhythmias.

WARNINGS: Sympathomimetic amines should be used judiciously and sparingly in patients with hypertension, diabetes mellitus, ischemic heart disease, increased intraocular pressure, hyperthyroidism, or prostatic hypertrophy. Sympathomimetics may produce central nervous system stimulation and convulsions or cardiovascular collapse with accompanying hypotension.

Antihistamines may impair mental and physical abilities required for the performance of potentially hazardous tasks, such as driving a vehicle or operating machinery, and mental alertness in children. Chlorpheniramine maleate has an atropine-like action and should be used with caution in patients with increased intraocular pressure, hyperthyroidism, cardiovascular disease, hypertension or in patients with a history of bronchial asthma.

Do not exceed recommended dosage.

Use in Pregnancy: The safety of pseudoephedrine for use during pregnancy has not been established.

Use in Elderly: The elderly (60 years and older) are more likely to have adverse reaction to sympathomimetics. Overdosage of sympathomimetics in this age group may cause hallucinations, convulsions, CNS depression, and death. Therefore, safe use of a short-acting sympathomimetic should be demonstrated in the individual elderly patient before considering the use of a sustained-action formulation.

PRECAUTIONS: This drug should be used with caution in patients with diabetes, hypertension, cardiovascular disease and hyperreactivity to ephedrine. The antihistaminic may cause drowsiness and ambulatory patients who operate machinery or motor vehicles should be cautioned accordingly.

ADVERSE REACTIONS: Hyperreactive individuals may display ephedrine-like reactions such as tachycardia, palpitations, headache, dizziness, or nausea. Patients sensitive to antihistamines may experience mild sedation.

Sympathomimetic drugs have been associated with certain untoward reactions including fear, anxiety, tenseness, restlessness, tremor, weakness, pallor, respiratory difficulty, dysuria, insomnia, hallucinations, convulsions, CNS depression, arrhythmias, and cardiovascular collapse with hypotension.

Possible side effects of antihistamines are drowsiness, restlessness, dizziness, weakness, dry mouth, anorexia, nausea, headache and nervousness, blurring of vision, heartburn, dysuria and very rarely, dermatitis.

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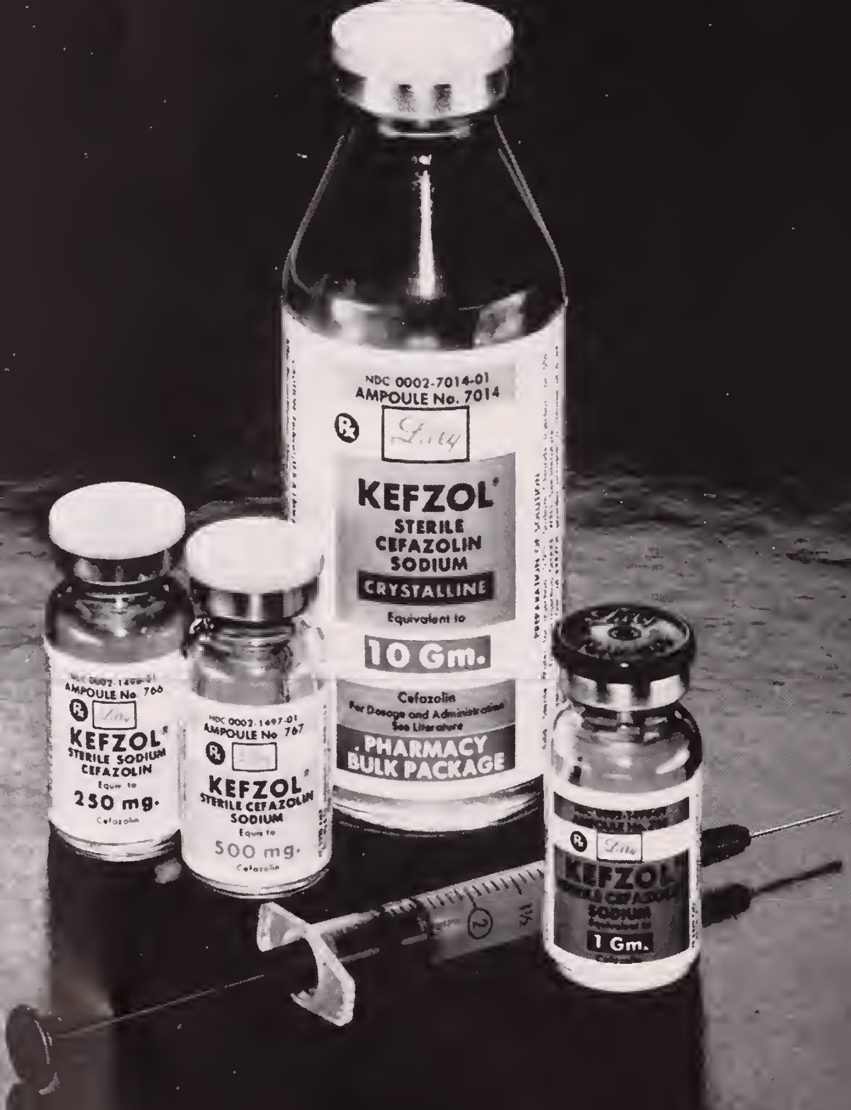

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THE NEBRASKA MEDICAL JOURNAL

STUDENT RESEARCH DAY

On November 11th, I attended Student Research Day at the University of Nebraska Medical Center, as an Honorary Chairman. I was amazed and I was pleased. The day was organized and conducted by students with the cosponsoring of the Chancellor of the University of Nebraska Medical Center and the College of Medicine. The forum was open to all students (medical, nursing, graduate, pharmacy, and residents) at the University of Nebraska Medical Center. They competed for trips to the AMSA National Student Research Forum in Galveston, Texas, and to the Midwest Student Research Forum in Iowa City, Iowa, and for cash awards.

Dr. Warren Pearse, Executive Director of the American College of Obstetrics and Gynecology, and an old friend, was the guest speaker and talked to a full house on "The Ethics of Research."

Consider; here are the subjects presented and their speakers. Electronic structure of 3-indol acetic acid; Roscoe O. VanCamp. Microvascular response to norepinephrine in hypertensive hamsters; Roger Click. T cell/B ratio in the human: a comparison of PHA stimulation and rosetting techniques; Robert Gould. Rat filicide inhibition using clinically applicable drugs; Tim Chappell.

A taxonomic study of the genus pasteurella; Joseph Gadberry. Adoptive tumor immunotherapy: alterations by C-AMP; Fred A. McCurdy. Purification and characterization of a methionyl transfer RNA^{metf} deacylase from rabbit reticulocytes; Larry E. Banta. Congenital coronary artery fistula; Randall L. Linton.

Cellular immune function in hypophysectomized and nonhypophysectomized rats; Helen L. Lipscomb. Modified Laver method for oxygen dissociation curve analysis; Stephen P. Bruttig. Slow response induced in canine Purkinje fibers; James R. Lohse. Ultrastructural localization of binding sites for antihuman follicle stimulating hormone; James C. Hutson.

Effects of estradiol, testosterone, and androstenedione on the oviduct of the lizard anolis carolinsis; Elizabeth Shah-Fang Chao. Systematic introduction of social isolation for reducing aggression in a schizophrenic child; Patricia K. Shehan. Chromosome morphology and sex determining mechanisms of the Siamese fighting fish, betta splendens; Lynn A. Lavia. Control of ACTH secretion from the rat pars intermedia; Jerry L. Fischer.

I counted 34 authors and co-authors. Each lecture, with its questions-and-answers, was limited to exactly 15 minutes. Everything started on time and finished on time. There were coffee-and-coke breaks.

And in the evening, Chancellor and Dean and faculty and chairmen and chairwomen and honorary chairmen and students got together for dinner, and the awards were announced and were presented, with handshakes and applause.

There was applause at the talks, too. And I was carried away with a feeling of admiration for these young people, and for the university for encouraging this project and for making sophisticated apparatus available, and for the camaraderie that followed; I even felt proud.

We're Number One.

—F.C.

EIGHT TO TEN IS NINE

The wound was described as eight to ten inches long. But an eight to ten inch wound is nine inches long; there is range for members of a series, but a scar is not a series. When I asked a patient how much she weighed, and she said 149 to 151, I put down 150.

If the normal blood level of anything is four to six, is it not just as accurate and far more sensible to say five, and remember only one figure instead of two? We are obsessed by range, which is important for some things, but not always for blood levels. Because we would need to memorize only a hundred numbers for a hundred substances, instead of two hundred; and because things differ in our bodies by something like 20 percent. And if we know that, then we can say the normal value is 5.3 plus or minus 20 percent.

The incubation period of children's viral diseases is 14 days, or even more simply, two weeks; but we were taught 12 to 16 days for some, and 10 to 18 days for another, I think. I may have the wrong numbers, but no matter; and anyway, I think it's the same for most of those illnesses.

Range is fine when you need it, but you don't want it when you're describing a single event.

When you buy a chair, $99.95 is a hundred dollars, not 90; and eight to ten is nine.

—F.C.

ON BIG WORDS

I have just read an article that had to do with poikilocytosis, erythropoiesis, and anisocytosis, and I think I know what they mean, but I don't like those words. The author went on to use another big word; it was nonmedical of a sort, and I looked it up, and it didn't mean what he seemed to think it did. I have to look up aphasia and apraxia every time, and as for cholecystoduodenostomy, if there is such a thing, I would just as soon do it as spell it.

I think it is time we simplified our jargon; we have invented a private language that no one else, that is, our patients, can understand, and we have in a like vein fled to Latin and to illegible handwriting. But we have done ourselves in, so that we must speak of simple things like variations in size and shape of red cells, which of course we call erythrocytes, by using the words in my opening sentence.

When we write arteriosclerosis or cardiomyopathy on a death certificate, it makes us sound surer than we are, and we come to feel more positive than we have a right to feel. Pharyngitis sounds better than sore throat, and coryza seems more scientific than cold. Is not influenza more impressive than flu?

There's a poikilocyte may be more elegant than *there's a funny-shaped red cell.* But bacteriologists talk to each other about bugs. Orthopedists have no fancier name for bones than just bones. The skin specialist may be a dermatologist, and the eye doctor an ophthalmologist; the ear-nose-and-throat physician is the worst of all, an otorhinolaryngologist; but the surgeon is still a surgeon, even if he calls the pathologist the pathological doctor.

Big minds don't think of big words, and big people don't write them; read Lincoln, even Milton; read the Bible, parts one and two.

—F.C.

ON WRITING ARTICLES SO YOU CAN READ THEM

When you get to the end of page three and you still have more to say, do it over, three pages are enough.

Don't put punctuation marks in the title; this confuses the browser when he comes across it in a list of references.

Illustrations are eye-catching; tell the reader, in the caption, exactly where the picture is referred to in the text.

There is no sensible difference between figures and tables, and the distinction is artificial and arbitrary. For example, the legend goes at the top for a table, but at the bottom for a figure, and there is no reason for maintaining this senseless custom. I suggest that we call them all by the same name, as illustrations, or just call them figures.

Do not use more than 15 references. If 300 workers preceded you, your work cannot be original. I do not believe that anyone can be interested in hundreds of references; an overly large number is meant only to impress the defenseless reader.

Don't add a bibliography. References should be referred to.

Don't thank your friends in the article; that's not the place to do it.

Don't begin with "what we set out to show." You knew the end before you began your study, and I won't believe you.

Don't use exclamation points.

Learn the rule for using capital letters and lower case, especially when naming drugs; and find out where semicolons and endquotes go.

Learn how to list references (there are three ways) and how to refer to journals.

Avoid French and Latin.

Avoid italics, too.

Don't put a comma after yet, or after but.

Never write and/or; you can't read it. Write good English instead.

Don't list 15 authors; one is enough, two are plenty, and after that, I wonder who wrote the article.

Put a comma between the last two items in a series; it belongs there.

—F.C.

The Management of Tachyarrhythmias In the Emergency Room*

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MORE and more physicians are practicing medicine in the Emergency Room who have had no prior background in the diagnosis and management of cardiac arrhythmias. This particularly applies to physicians who have not had extensive internal medicine and/or cardiology training. In this article we will not attempt to provide a thorough background for the electrocardiographic diagnosis of arrhythmias; in fact, no electrocardiograms will be shown. Electrocardiographic diagnosis can be learned better from many standard ECG textbooks. Rather, our objective is to provide some background for quick therapeutic decision making in patients with the common sustained tachyarrhythmias. Other arrhythmias, including premature contractions, bradyarrhythmias, and heart block will not be covered.

Basically, the major therapeutic decisions in the care of a particular patient with a tachyarrhythmia involve the following:

1) Should you admit the patient to the hospital, or should you send him home? And if you admit him, should you put him in a regular hospital room or intensive care area?
2) Should you immediately administer defibrillation or synchronized cardioversion to the patient?
3) Should you administer drug therapy and what drug?
4) How soon should you consult with the patient's private physician?

The management of tachyarrhythmias primarily depends upon the overall hemodynamic status of the patient. In other words, if the patient is in immediate trouble, he requires immediate therapy, possibly electric shock treatment. On the other hand, if he is stable, has a prior history of the same arrhythmia and is on medical therapy, earlier consultation with the patient's physician will be necessary for further management.

Paroxysmal Atrial Tachycardia

Paroxysmal atrial tachycardia (PAT) is the most common paroxysmal tachycardia in childhood and young adulthood. The ECG diagnosis is based upon regular P wave activity and an identical ventricular rate of 160-250/min. By history a helpful clue is the abrupt onset and termination of the tachycardia, either spontaneously or by therapeutic maneuvers. If the ventricular rate is exactly 150/min., atrial flutter must always be considered and excluded. The primary objective of therapy is to create increased vagal tone in order to inhibit atrial-ventricular conduction. If the patient has underlying heart disease and is in serious hemodynamic trouble, such as severe hypotension, shock, or heart failure, immediate cardioversion is required. This applies to all arrhythmias. However, generally there is no underlying heart disease in PAT, usually the patient is not in serious trouble, and ample time should be taken to decide about a logical sequence of maneuvers and drug therapy that may convert the arrhythmia to normal sinus rhythm in the emergency room. The following therapy is appropriate for the emergency room:

1) Carotid sinus massage — after making sure that the patient does not have a

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Based on lecture given at the Nebraska Medical Association, 107th Annual Session, April 30, 1975.

loud bruit over either the right or the left carotid artery, plus no signs or symptoms of a transient ischemic attack are present, moderately heavy massage over first the right and then the left carotid sinus should be performed for approximately five-six seconds, under constant ECG monitoring. There will be either no effect or abrupt termination of the tachycardia. Be sure to rub vigorously only one carotid sinus at a time.

2) Valsalva maneuver — may be performed in combination with carotid sinus massage. The arrhythmia may suddenly convert to NSR either during or immediately following cessation of the valsalva.

3) We do not recommend vigorous eyeball pressure, since it is potentially dangerous (especially in the elderly) and rarely effective.

4) Mild sedation should be considered if the patient is extremely anxious and tense, such as by intravenous Valium (diazepam) 5-10 mg directly into the vein. If the Valium is injected into the intravenous tubing, frequently there is no or only a partial effect, presumably due to adherence of the Valium molecules to the plastic tubing.

5) Tensilon (edrophonium): The theoretical background is to block cholinesterase in order to prolong the effect of acetylcholine produced by the vagus nerve. Therapy is given as in myasthenia gravis, first starting with 1 mg test dose, followed by gradual intravenous injection up to 10 mgs IV slowly. Again, combine this with carotid sinus massage and the valsalva maneuver simultaneously. However, we have not found Tensilon to be a reliable agent in the uncomplicated patient with PAT.

6) Elevate blood pressure: This is frequently effective. The aim is to raise systolic blood pressure to 150-160 mm Hg systolic, or 30-40 mm Hg higher than the baseline systolic pressure. One approach would be to use neosynephrine 1.0 - 2.0 mg slowly I.V. over several minutes with continual and close monitoring of blood pressure in the other arm. Actually, any catecholamine could be used with the other alternative being Aramine (metaraminol), placing 100 mg in a 250-500 ml bottle of intravenous fluid. The blood pressure must be watched very closely, since if the blood pressure is elevated to excessive height, it potentially would be detrimental to the patient and precipitate acute pulmonary edema. This maneuver should be used with greater caution in patients with organic heart disease and/or mitral insufficiency.

7) Propranolol: If the patient has not responded with the above maneuvers, then propranolol (Inderal) may be considered, but only if the patient has no serious underlying heart disease, i.e., no signs of congestive failure or severe left ventricular dysfunction. If the latter is present, and if propranolol does not immediately terminate the arrhythmia, worse pump failure will be created. This is the first point then when a significant therapeutic decision must be made by the emergency room physician, and probably should be done in concert with the patient's private physician.

8) If the above therapy does not work, we are now at a crossroads in further management decisions. The question now is — do we cardiovert or digitalize? Either one of these decisions should not be answered in the emergency room, and the patient at this point should be admitted to the critical care unit for further evaluation and therapy by the patient's physician.

9) If one of the above maneuvers did terminate the arrhythmia, discussion with the private physician will be necessary to decide if the patient should go home and on what type of maintenance therapy. Oral digoxin continues to be the backbone of maintenance therapy, but if it has been previously unsuccessful, oral Quinidine and/or Propranolol may be added.

Paroxysmal Atrial Tachycardia With AV Block

Paroxysmal atrial tachycardia (PAT) with AV block must always create in the clinician's mind a cardinal rule: Must rule out digitalis toxicity. The patient must be admitted to the hospital for further observation and therapy. Rarely PAT with block is not secondary to digitalis toxicity and then would be treated like any other cases of PAT. The primary differential diagnosis by the electrocardiogram is to separate from atrial flutter. Of major help is observation of the inferior leads, i.e., leads II, III, and AVF; in PAT with block the atrial rate is generally 180-240 beats/min., which is slower than the atrial rate in atrial flutter; and flutter waves are absent. Discrete P wave activity with an isoelectric line between each P wave is present in the inferior leads. If only the precordial lead V_1 is analyzed, it may look quite similar to atrial flutter. The response to carotid sinus massage is similar to atrial flutter-prolongation of AV block and slowing of the ventricular rate, but rarely abrupt change to normal sinus rhythm.

Atrial Flutter

Frequently the diagnosis of atrial flutter is easy because of continuous, uniform, baseline oscillations in the inferior leads, the so-called "sawtooth" pattern. There may be more discrete P wave appearance in lead V_1 with an isoelectric line and mimic PAT with AV block. Atrial flutter must always be suspected with an exact ventricular rate of 150 beats/min, indicating a 2-to-1 AV block. Atrial rate is usually 250-300 beats/min. Carotid sinus massage will frequently increase AV block, and reveal the atrial activity more clearly.

Atrial flutter frequently is a sign of significant underlying organic heart disease. Pulmonary disease is also common, especially pulmonary emboli. It is rarely due to digitalis toxicity. If this is the first onset of atrial flutter, the patient should be admitted to the hospital for further workup and management.

Synchronized D.C. cardioversion is usually the treatment of choice for atrial flutter because of its low energy requirement for cardioversion, and the frequent difficulty with attempted drug conversion, using the usual combinations of oral Lanoxin (digoxin), quinidine, and/or Inderal. All therapeutic decisions should be performed in concert with the patient's private physician.

Atrial Fibrillation

ECG diagnosis is generally easy because of the absence of discrete P wave activity with an irregularly irregular ventricular rate. In the vast majority of circumstances, this patient does not require emergent electrical cardioversion, except for the occasional occurrence of the sudden onset with a rapid ventricular rate in the presence of underlying severe organic heart disease. Even then there is generally time to consult the patient's physician and/or a cardiologist for further decisions. The major significance to the emergency room physician is a sign to serious underlying heart disease such as mitral valve stenosis, arteriosclerotic coronary artery disease, thyrotoxicosis, and frequently due to pulmonary disease. The patient should be admitted to the hospital if this is the first time of onset for further evaluation and therapy. If the patient is in chronic atrial fibrillation, and especially if already on digitalis therapy, the emergency room physician should consider the possibility of digitalis toxicity. The following signs in the presence of atrial fibrillation should suggest digitalis toxicity:

1) a very slow ventricular rate, especially if less than 50 per minute,
2) regularization of the ventricular rate, which generally means a degree of AV block with an escape AV junctional pacemaker,
3) frequent PVCs, especially with ventricular bigeminy.

If the patient is clinically ill with signs of digitalis toxicity, the patient should be admitted to the coronary care unit and monitored. If no signs of toxicity are present and/or the patient is asymptomatic, he may be referred to the private physician for further followup.

Multifocal Atrial Tachycardia

Multifocal or chaotic atrial tachycardia is characterized by three families or foci of discrete P wave activity, with the atrial rate greater than 100/min.; an isoelectric line is present between the discrete P waves; and there is a chaotic variation in the P-P, P-R, and frequently the R-R intervals. In the emergency room this is generally discovered incidentally because of the irregular rhythm with potential confusion with atrial fibrillation-flutter. Generally the patient is seriously ill secondary to respiratory failure and/or severe congestive heart failure and the arrhythmia is detected incidentally. This is not a disease to treat in the emergency room, and the patient generally requires hospitalization in a critical care area for further evaluation and therapy. Generally the arrhythmia only responds when the basic underlying condition is corrected. The prognosis is poor.

AV Junctional Tachycardia

There are two forms of AV junctional tachycardia: 1) Paroxysmal junctional tachycardia, which is identical to PAT physiologically and hemodynamically, except electrocardiographically there is absence of discrete P wave activity in front of the QRS complexes. Treatment is identical to PAT; 2) Non-paroxysmal AV junctional tachycardia (also called accelerated AV junctional rhythm) — should remember that the usual junctional pacemaker is regular and the rate 40-70 beats/min. In paroxysmal junctional tachycardia there is abrupt onset and termination of the ventricular rate, with a regular ventricular rate of 180-240/min., i.e., similar to PAT. However, in a non-paroxysmal variety, there is a gradual onset, with the ventricular rate generally between 70-130 beats/min. Generally the patient is not in trouble from the arrhythmia itself, but definitely requires admission to the hospital for further management, since it is generally due to acute inferior wall myocardial infarction and/or digitalis toxicity. It is almost always secondary to serious underlying organic heart disease, and if acute myocardial infarction present, the mortality rate is high.

Ventricular Tachycardia

Although an exact ECG diagnosis of ventricular tachycardia may be difficult, generally the emergency room physician should be suspicious of ventricular tachycardia in the presence of: 1) a rapid ventricular rate of 150-200 beats/min, either regular or irregular; 2) wide QRS complexes equal or greater than 0.12 sec; and 3) if P waves are seen, they are not related to the QRS complexes. In other words, AV dissociation is present. If sinus capture beats and/or ventricular fusion beats are present, the diagnosis is almost certain. Ventricular tachycardia almost always affects a diseased heart, except for the rare circumstance of so-called "benign" ventricular tachycardia. Usually the patient requires immediate defibrillation therapy. He always requires consultation with the patient's physician, plus should be admitted to the hospital to a critical care unit for further observation and management. If the patient is not unconscious and in shock, and you have time to consider medical therapy, consider the following sequence:

1) Lidocaine: The most effective medication, starting with 1 mg/kg intravenous push, followed by an intravenous infusion of 1-4 mgs/min. I.V.

2) Procainamide: If Lidocaine does not work, give 100 mg I.V. push slowly over about five minutes, and repeat 5-6 times in succession if necessary.

3) Dilantin (diphenylhydantoin): If lidocaine and procainamide are unsuccessful, consider giving Dilantin 200-250 mg slowly intravenously over several minutes. Rarely is this very effective unless there is digitalis toxicity present.

4) Propranolol: If the above measures are unsuccessful, then a serious decision about the use of beta-adrenergic blockade approaches. If the patient is in serious left ventricular failure, pulmonary congestion, or shock, propranolol may very likely make the patient worse. But if the patient has digitalis toxicity, and does not seem to be responding to the above medications, propranolol 1-5 mg slowly I.V. push may be considered, but should be done in concert with the opinion of the private physician and/or a cardiologist.

5) Furthermore, complicated and controversial therapy should be done in the hospital in the critical care unit under the advice of a cardiologist. This involves the use of the experimental drug Bretylium, overdrive suppression by a pacemaker, and in the post-myocardial infarction patient, the diagnosis and

possible resection of a ventricular aneurysm.

In the presence of a rapid tachycardia with bizarre-looking wide QRS complexes, and a stable patient, a supraventricular tachycardia with aberrant ventricular conduction should be considered. Certainly if prior right bundle branch block, left bundle branch block, or Wolff-Parkinson-White Syndrome are known, this may be a supraventricular tachycardia. But in that circumstance, generally the patient will be stable, allowing time for more consultation with the patient's physician and probably admission for further management. If there is any doubt whether it is ventricular or supraventricular in origin, we would recommend starting with the push intravenous dose of Lidocaine as a therapeutic trial while you are awaiting further consultation.

In summary, the emergency room physician should familiarize himself with the common forms of supraventricular and ventricular arrhythmias in other available ECG textbooks. At this point in time, the following anti-arrhythmic drugs are the basic armamentarium in the treatment of cardiac arrhythmias in the emergency room: Digoxin, lidocaine, Procainamide, Propranolol, Dilantin, Neosynephrine, and Tensilon. It is hoped this brief incomplete outline of the management decisions in the emergency room will stimulate the reader to read further and in depth into diagnosis and management of tachyarrhythmias.

Physicians, Teachers and School Health Education

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WHAT should the schools teach about the Health Care Delivery System? More importantly, who should decide what is to be taught? Do teachers, who are trusted with the responsibility of spreading knowledge and encouraging learning, agree with physicians, who provide medical services, on what should be taught?

On the premise that the development of a sound school health education program depends upon the support of the medical profession, a study was undertaken to determine how closely physicians and teachers agree on the priority of topics to be taught to young people.

Methods

A comprehensive list of topics concerning health care services was developed and submitted to a panel of 39 judges from the fields of education and medicine. The panel was asked to rank the topics on a six point scale in terms of their perceived importance or priority. Importance or priority was defined as the relative value of knowledge about a topic in assisting an individual to use available health services, and therefore, involved a degree of evaluation of the services themselves. 26 of the 39 judges returned the lists with priorities indicated. The final rating scale used in this study consisted of the 29 items ranked above the midpoint of the value scale completed by the panel. Four items were then deleted because definitions were unclear, and to items thought to be unimportant by the panel of judges were added as a validity check. Respondents were then asked to rate each item using a six point

TABLE 1

Rank Order, Mean Scores, and t Values
of
Knowledge Items Regarding Health Services

Physicians				Teachers		
Item	Rank	Mean	t **	Item	Rank	Mean
Knowledge of:				Knowledge of:		
Differences between legitimate and illegitimate medical practitioners	1	1.30	1.31	Sources of emergency medical aid	1	1.15
Sources of emergency medical aid	1	1.30	1.78	Differences between legitimate and illegitimate medical practitioners	2	1.18
Vaccination schedule for children	3	1.83	0.08	Actions to take if medical aid thought to be inadequate or harmful	3	1.44
Different types of health insurance policies and their benefits	4	1.86	-1.62	Ways of selecting a physician	4	1.55
Ways of selecting a physician	5	1.39	2.49*	Sources of psychiatric assistance	5	1.64
Sources of psychiatric assistance	6	2.13	3.81*	Free medical services	6	1.77
Pros and cons of group medical insurance	7	2.14	0.02	Services from a local health department	7	1.78
How to evaluate advertisements for health related products or services	8	2.16	1.82	Vaccination schedule for children	8	1.82
In-patient and out-patient services available	9	2.20	1.47	How to evaluate advertisements for health related products or services	9	1.89
Actions to take if medical aid thought to be inadequate or harmful	10	2.31	6.53*	How to evaluate medical services.	10	1.91
Differences between medical specialities	11	2.50	2.07*	Public health clinics	11	1.93
Free medical services	12	2.51	4.85*	In-patient and out-patient services available	12	2.01
Sources of health information	13	2.52	2.86*	Fee structure for services from medical practitioner	13	2.04

Table 1 cont'.

Different types of life insurance policies and their benefits	14	2.54	-0.67	Medical services and help available from the federal government	14	2.08
Services from a local health department	15	2.58	5.61*	Different types of health insurance policies and their benefits	15	2.09
Public health clinics	15	2.58	4.45*	Sources of health information	16	2.12
How to evaluate medical services	17	2.60	4.55*	How to make an adequate self referral	17	2.14
Medical services available through voluntary health organizations	18	2.68	2.49*	Pros and cons of group medical insurance	17	2.14
Fee structure for services from medical practitioner	19	2.69	3.81*	Differences between medical specialities	19	2.20
Medical services and help available from the federal government	20	2.82	4.53*	Medical services available through voluntary health organizations	20	2.30
Functioning of the medical referral system	21	2.86	0.71	How to select a pharmacist	21	2.63
How to make an adequate self referral	22	2.98	5.01*	Different types of life insurance policies and their benefits	22	2.67
Differences between various levels of nursing personnel	23	3.22	1.30	Functioning of the medical referral system	23	2.75
How to select a pharmacist	24	3.43	4.56*	Regulatory agencies in the medical field	24	2.99
Regulatory agencies in the medical field	25	3.88	2.24*	Differences between various levels of nursing personnel	24	2.99
Administrative structure of the State Health Department	25	4.10	3.75*	Administrative structure of the State Health Department	25	3.36
Administrative structure of Health, Education and Welfare Department	26	4.38	4.90*	Administrative structure of Health, Education and Welfare Department	26	3.72

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* _t_ = significant beyond the 0.05 level

**_t_ values from comparison of mean scores of the two groups for that item are presented after each item under the physician heading only.

rating scale with "1" representing the greatest importance, and "6" representing the least.

150 physicians and 150 teachers randomly selected from the directories of the Nebraska State Medical Association and the Nebraska Education Association, respectively, were mailed the rating scales. 122 (81.3%) of the physicians and 123 (82.0%) of the teachers returned completed and usable rating scales.

Results

Rating scales of this type, while easily administered, provide data that are difficult to statistically interpret because data from such scales are ordinal rather than interval. Examination of rank order and the relative difference in values assigned to each item is useful and provides insight into many questions related to the development of school health education programs.

Table 1 presents mean scores, rank and t values for all items on the scale. Mean scores reflect significant differences in the assigned values in 17 of the 27 items. All of these 17 items were rated more important by teachers than physicians.

Discussion

The rank order of items rated by doctors and teachers provides the basis for a simple but pragmatic discussion of these data. The relative values represented in the mean scores of the rating scales and the t values will be considered later. For the purpose of this discussion we have divided the list of rated items in two halves assuming that, at best, any teacher would only have time to teach a maximum of half of the topics included in the original list. Teachers cannot teach all topics that may be considered important; arbitrary decisions must be made as to which are to be included and which are to be omitted or left for another time. The significance of this exercise then results from a comparison of the 13 items thought to be most important by physicians and the 13 items thought to be most important by teachers. Or, considered another way, the 13 items physicians would include in a health education program compared with the 13 items teachers would include. These differences are readily apparent from Table 1 which shows the responses of the two groups in rank order.

Seventeen different items were placed in the top priority category by the two groups sampled. Five items were ranked very closely. Four items, while included in both sets of top priority items, differed substantially in their relative ranking. Four items were unique to physicians' top rankings and four different items appeared in the teachers' top rankings.

Both physicians and teachers agreed upon nine fundamental areas of knowledge. It is important for the layman to know about 1) the differences between legitimate and illegitimate (that is, M.D. and non-M.D.) medical practitioners, 2) sources of emergency medical aid, 3) the vaccination schedule for children, 4) how to select a physician, 5) sources of psychiatric assistance, 6) how to evaluate medical advertising, 7) what action to take if medical aid is thought to be inadequate or harmful, 8) inpatient and outpatient services available in a community, and 9) free medical services.

Five of the nine items agreed upon as having top priority differed by only one rank in their ordered positions. General agreement, in terms of rank ordered importance, was found for 1) differences between legitimate and illegitimate medical practitioners, 2) sources of emergency medical aid, 3) ways of selecting a physician, 4) sources of psychiatric assistance, and 5) evaluation of health advertisements and services. Thought important but differing in relative rank were four items. Physicians thought knowledge of children's vaccination schedule more important than teachers did, while knowledge of what actions to take if medical aid is thought to be inadequate, knowledge of available free medical services and of available inpatient and outpatient services were ranked higher and therefore thought to be more important by teachers than doctors.

Physicians and teachers differed completely with respect to four of the top 17 items chosen. Physicians included in their top priority ratings knowledge of different types of health insurance policies and their benefits, pros and cons of group health insurance, differences between medical specialists, and knowledge of sources of health information. Teachers did not concur on these choices. Teachers instead ranked knowledge of services available from the local health department, means of evaluating medical services, knowledge of available public health clinics and of the private physician's fee structure as top priority items. None of these items were similarly ranked by physicians.

Considering those items differently ranked, at least two identifiable categories emerge. Physicians rated the areas of health insurance and group medical insurance important enough to include in the upper half of their rankings. These can be classified as economic items relating to the payment for services. Teachers shared a concern with the economic aspects of health care but disagreed on the items in question. They ranked as important the fact that laymen should have knowledge of the fee structure which private doctors use to assess charges, available services from the local health department and public health clinics, and gave much higher priority to knowledge of free medical services. Overall, physicians placed a higher priority on knowledge about the means of payment for services, while teachers were more concerned with laymen understanding the basis of the fees charged and knowing where to get free services or tax supported services.

Physicians and teachers differed in two additional aspects. Teachers thought it more important for the layman to be able to evaluate medical services, while physicians felt it more important that the layman be able to differentiate between medical specialities and to know where to go for health information.

Examination of the rating scale mean scores reveals that for 17 of the items significantly different mean scores were achieved with teachers in every case rating the items higher in priority than physicians. The most likely explanation for this is that teachers generally share a concern for their own and their students' health, but normally only come face-to-face with the care system and doctors for employment and insurance physicals, or in time of stress such as illness; consequently, they see these items in a different and more important light than physicians who have day-to-day contact with the care system and who function in the confidence that they can deal with most medical situations.

Support from the medical community could be expected for a health education course which would include those items mutually agreed upon. Support would probably not be as strong for a health education course based on the priorities of the teachers alone. These data suggest two important questions: 1) what are the effects of the differing priorities of physicians and teachers on students' abilities to use available health services, and 2) are these effects significant, and if so, how can physicians and teachers move toward greater agreement on school health education programs?

As previously noted, the ranking of importance of health education topics by teachers is more than an academic exercise. In each school there is a limited amount of time devoted to health education. With all other factors being equal, it is reasonable to expect that the more highly rated topics will be the ones covered, or given the most coverage. If the topics covered in the schools are not the ones deemed by physicians as being most important, two outcomes are possible: 1) there will be a lack of support, if not outright mistrust, by physicians for health education programs, or 2) physicians will have erroneous expectations of (future) patients' understanding of the health care system, thus increasing the opportunity for unsatisfactory doctor-patient relations. Of interest here is a recent survey which indicates that physicians report patient health education as their third most frequent clincial activity in office practice.[1] Patients, on the other hand, report that they are more dissatisfied with the information they receive from their physicians than with any other aspect of medical care.[2]

Consumers have an increasing level of expectation concerning the health care delivery system. Many have suggested that one option to reduce costs would be to have a better educated consumer, more able to understand the rationale behind medical procedures and their expense; however, such a solution is unlikely if the lack of communication between physicians and teachers suggested in this study actually exists. A fundamental issue has been raised: Do physicians and teachers ever discuss the relative priorities of a health education program? This question has local significance because Nebraska recently has approved legislation encouraging the implementation of health education programs in the state schools.

The data in this study do not indicate the etiology of the problem, but they do appear to suggest a need for remedial measures. Such efforts could be as simple as individual teachers and physicians seeking their counterpart's advice and guidance concerning educational programs, or as complex as forming interdisciplinary groups for consideration and support of comprehensive health education programs. Physicians probably have a more discriminating view of health, but it is the teachers who are called upon to provide much of the knowledge for the future generation about how to use health services and maintain health.

Now is the time to determine what is to be taught and, maybe more importantly, not taught. Both the consumer and the provider will have to live for many years with the results of our present health education system.

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Medical Treatment of Lymphomas

JOHN R. FEAGLER, M.D.

ADVANCEMENTS in both chemotherapy and radiotherapy have made lymphomas a very treatable malignancy with a high rate of "cure" in certain situations. A therapeutic approach formulated for individual patients depends upon the extent, location and systemic symptoms (stage) as well as the histologic type of lymphoma encountered. Usually, these decisions should be made jointly by a chemotherapist and radiotherapist or physicians familiar with the natural history and prognosis of the particular lymphoma. It is the author's opinion that this allows for treatment modifications to be made on individual differences, within a particular stage or histologic classification, and, hopefully, optimal patient care and prognosis.

Therapy differs for Hodgkin's vs non-Hodgkin's lymphoma. In general, Stage I and II-A Hodgkin's disease is almost uniformly treated with radiotherapy. The extent of radiation — local, contiguous, or to remote nodal areas — may differ due to location, histologic type, sex, and age of the patient. The only exception is the lymphocyte depleted variety of Hodgkin's which many feel should be treated primarily with chemotherapeutic agents. The therapy of Stage II-B, III-A, or B Hodgkin's disease is controversial. The exact sequence or combination of chemotherapy and/or radiotherapy should be individualized. Stage IV Hodgkin's disease is uniformly treated with chemotherapy with radiation therapy providing a palliative role. Microvascular invasion, histologically, by Hodgkin's lymphoma cells in the node biopsy is a poor prognostic sign, regardless of the clinical stage. When such a situation is present, chemotherapy should always be a part of the therapy planned.

The combination of nitrogen mustard, Oncovin (vincristine), prednisone and procarbazine (MOPP) has become the yardstick by which other drug combinations are measured. At the present time, Stage I Hodgkin's disease has a 90% 5 year survival, while Stage IIA has an 80-85% survival with radiation therapy. Stage IIIA disease has a 50% survival with a combination of chemotherapy and radiation therapy. Stage III-B or IV-A has a 35% survival; and in Stage IV B, a 20% 5 year survival can be expected. The use of additional combinations such as BCVPP, consisting of BCNU (a nitrosourea), cyclophosphamide, vinblastine, procarbazine, and prednisone may improve on these figures. Judicial use of single agent chemotherapy may still be useful in certain clinical situations.

Therapy of non-Hodgkin's lymphoma is far more controversial due to (a) variations in histologic occurrence from poorly differentiated to well differentiated, (b) variation of diffuse or nodular histologic patterns, (c) natural history of the particular histologic classification including a propensity for leukemic, C.N.S. or extranodal involvement. Because of these points, chemotherapy is usually the preferred therapy with radiotherapy adding palliative effects. Nodular histologic types uniformly do better than the diffuse pattern regardless of the degree of differentiation in that subgroup. In some situations such as localized giant follicular lymphoma, radiotherapy may be the treatment of choice and in others a judicious combination of the two modes of therapy. Single agent chemotherapy with chlorambucil may often suffice, even with poorly differentiated lymphoma. However, this is usually reserved for the well differentiated variety. Combination chemotherapy is less standardized in comparison to Hodgkin's disease. Cyclophosphamide, vincristine and prednisone is the preferred combination in mixed or moderately well differentiated lymphoma, whether nodular or diffuse in pattern. Adriamycin, one of our newer chemotherapeutic agents, in combination with other agents, appears to be very effective with rapidly growing types of non-Hodgkin's lymphoma. Prophylactic therapy to the central nervous system structures must be considered in poorly differentiated lymphomas in patients less than 20 years of age.

The use of supplemental radiotherapy in non-Hodgkin's lymphoma is emerging. With primary abdominal disease, spray radiation to the entire abdomen may be indicated. In rare situations, I have used chemotherapeutic agents concomitantly with radiotherapy when neither was terribly effective alone. This, however, can be hazardous due to rapid and severe marrow suppression, and should be reserved for unusual circumstances. Immunotherapy with radiated host tumor cells or use of immunologic adjuvants, such as BCG or Corynebacterium parvum is being incorporated into drug protocols as well as in "remission" phases, hoping to improve on the above statistics. The use of such immunostimulants, however encouraging, is still experimental.

The proper choice and sequence of therapy can greatly influence the survival of both Hodgkin's and non-Hodgkin's lymphoma. In either disease process, there will be a large group of patients who will do exceedingly well and a small percent who will be "cured." With current drug and radiotherapy available, it is a mistake for a physician to assume that this is an untreatable or poorly responsive malignancy and not to seek optimal management.

Nostalgia — 1975

JANE T. SLOAN

THERE is a definition going the rounds these days that just fills the "bill" for us. Nostalgia: "The past perfect—the present tense—the future pluperfect."

Turn back the clock to that "past perfect" day in May 1925, in Lincoln, Nebraska. Viewed from our vantage point it seems life was simpler. Good manners were still in vogue. Hats, what lovely concoctions they were, were an important part of one's wardrobe. People were getting about more and seeing things they'd never dreamed were possible. The flying machine was here to stay!

Exciting things were happening to ladies. They began to show interest in joining groups whose concerns ranged far from the confines of home. Doctors' wives had already formed the auxiliary to the AMA. You here in Nebraska were among the true pioneers.

The National Convention in 1925 was held in Atlantic City in May. Recruiting efforts of national leaders were somewhat disappointing that year. In fact, it seems that there was an unusual amount of prodding by a handful of workers until they netted enough bodies for a quorum.

In that "past perfect" year 1925, no travel expenses were allowed the president or any other officers of the National Auxiliary. The treasurer reported a balance of $5.00 for the year. There was a lengthy debate before 25c per capita was voted to be paid in dues. Every state president was a member of the national board in the year 1925. There was concern about good communication, too, and the vice-presidents became responsible for the states in their region, in order to keep them better informed. Publicity was added to the list of auxiliary committees. The president of AMA acknowledged the fact that the auxiliary was a great asset to the profession but he cautioned the ladies to avoid all activity where medical legislation was concerned. The past perfect!

Those early days we smile about very soon began to take on seriousness with the depression and all of the alphabet agencies: The enacting of much social legislation . . . and inevitably the threat of state medicine. Now the president of AMA, in June 1934, admonished auxilians to "keep informed on legislation."

Auxiliary members still wore hats to all meetings (often a different one for each change of costume and costumes were changed three times a day). Auxiliary members delighted in social acitivities, but the "past perfect" was taking on a new direction, one in which we have steadily moved for forty years. And that brings us to the . .. present . . .tense.

In order to be part of the medical scene in Nebraska, or anywhere else in the nation today, we must be informed about legislation which affects us. None in this room is isolated from the serious situation our husbands are facing in the malpractice crisis. What effects you, here in Nebraska, effects me in Ohio. We must be active in support of legislation that will enable all of our citizens to receive the best medical care available. It means you and I must be part of Legsline and dedicated enough to respond when the alert comes, whenever that may be.

In the "past perfect" . . . if any doctor's wife dreamed of heading a political party she kept her dreams to herself. But we today delight in the knowledge that one of our auxilians has risen to this position. And there are many more who are earnestly working on every level in this tense present. The legions of us without special talents can still make our voices heard by way of the AMPAC dollar and your record here in Nebraska is commendable. In this bi-centennial year let's make a real effort to increase membership in PAC realizing it is a vital part of our lifeline in medicine.

The dreams and work of many people have brought us to the present but few have contributed more proudly to the general well being of the nation than those of the medical profession. Many have worked long hours and sometimes without pay to insure some life the chance to live in our America. In the present, which is so tense, let us see this as one of our continuing concerns, as members of this proud medical family, that the best kind of health care be given all those who seek it.

As we look back over the years our organization has come from unsophisticated childhood to maturity in every area. We learned very early the importance of communicating. Our efforts have paid off in many ways. 90,000 members is one proof. Indeed by 1926 the first Bulletin was published by national in order to keep local auxiliaries informed about programs and projects and the reasons for membership in the auxiliary. We've run the gamut from Bulletin to "Direct Line" and "MD's Wife" in an honest effort to keep in touch with our members.

"MD's Wife" is our best tool for keeping the auxiliary healthy. It reaches every member of every auxiliary — 90,000 of us — with the story of what this organization is all about and it does a great job. "MD's Wife" keeps earning new honors for itself, among publications of like kind. When we read this attractive magazine we see the doctor's wife for what she is and we feel we know her better. We are one with her.

When we flounder back home, a program doesn't come off just right, we can get help in practical terms from Direct Line. Articles clear and concise are yours for the reading and use in every county.

You in Nebraska have been bold enough to adopt a new format for your "Newsletter" in order to keep members interested and aware of what is happening in your state. Congratulations.

The best program in the world needs to be shared by others and that's what communication is all about. Communication is sending and it is listening. Good communication is at the heart of all successful programs—past, present or future.

Last year your slogan, To Know, To Care, To Be Informed certainly got it all together. Your concern for *"The Special Needs of School Age Parents"* was admirable. And your membership in the Interagency Health Council is just what the National Auxiliary hopes each auxiliary will actively work toward in this present. We are in the most advantageous position, where community health problems are concerned, and we cannot afford to turn away from the appeals we hear for help. We must be represented on just as many boards and committees of community agencies as possible in every county in every state. We don't want to be there as a status symbol, not just to have our name on the left hand side of the stationery but as a person giving time, energy and talent and as a doctor's wife and an able representative of the medical community.

There can be no better description of our times than present tense. For the first time in many years, young people are hesitating in the mad rush toward a career. Mom and Dad don't have the ready cash and there is some anxiety about how much post-graduate work they'll be able to finance. Thousands of men and women are knocking on the doors of the medical schools while they seek financial aid. I'm certain in that "past perfect" time the greatest visionary of all could not forsee the time the auxiliary would present a check for $1,000,000 to AMA-ERF. Everyone in the room that day felt less tense when they realized what had been achieved. And for a little while the future of medicine was a bit more secure.

Your own effort is typical of what can be done when we are sold on a cause . . . $19,000 and more. Most of our effort involves activities which are fun and the dollars add up. We ask you to keep adding them this year as never before.

If you agree that the present is tense maybe you agree it is so because of things that are happening a world away as well as right here. From the beginning, we have been concerned with the quality of life, not only for us in this beautiful land but for millions around the world. In many little ways . . . in many exciting ways we have responded through international health activities. We've shared dollars, our surplus drugs, our creative ability. We've opened our homes and our hearts in every imaginable way. And we have all pushed back our horizons as we got to know the strangers a little better. The lifeline of many auxiliaries is tied up with this phase of our program for international health is a real rallying point in our weary old world.

Today we can truly say there is something for everyone in our auxiliary.

What is left for us to do in that pluperfect future? Would you believe . . . everything?

Because we are 90,000 strong and come from the four corners of our land we have never wanted for dreamers of dreams or doers of deeds. This is the year of the invitation "come dream with me." Our National President boldly charted a course we could steer ourselves by and the auxiliary accepted the challenge and is heading into the future, full steam ahead.

We will still be rooted in the perfect past where people cared about people and life was simpler. Our programs will be as diverse as 50 states can make them while we continue to work for a "million or more" for AMA-ERF — legislation — community and family health — international health but there will be a new source of energy and power generated through the concept of a Project Bank, the look of the future.

Yes, it means a bit of re-structuring (streamlining, if you will). It could mean giving up a few positions along the way in the interest of moving smoothly and effectively into the 21st century. For all auxiliaries it will mean a renewal of purpose as we continue our forward course without the dictates of National Auxiliary.

In the "pluperfect future" we'll have a voice in selecting priorities and the kinds of efforts we'll make to reach goals. The Project Bank is a lighthouse housed in Chicago. Our skipper is the national Project Co-ordinator who with her crew will see to it we have the latest route to a given goal. We have only to flash the signal and help will come to us from anywhere in the U.S.A. Given by those who have successfully tried the program or project. In the future what we do as a county auxiliary will be tailored to fit our needs and interests and we can all get into the act.

It has become an accepted fact that we get what we pay for. Fifty years ago 25c bought a stake in the fabulous future. Today we must decide if we have reached the ultimate goal or is there something out there of which we want to be part. Considering a dues raise is never easy. It will not be easy in 1975. The final decision will be ours. Is our past worthy enough to honor? Are our programs meaningful today? Do we value the ties of association with others enough to want to continue them? There are many choices open to us but none more crucial than the choice we make in this area.

The dreamers of 53 years ago, and the first members of the auxiliary in Nebraska, didn't dream of the day our beloved auxiliary would face a name change in order to let men become members. Perish the thought! In our tense present we feel a bit hesitant about this giant step we are to take in Atlantic City in June 1975. Our future will be different from that date. We will be saying for all to hear, "we believe in the future." Our programs will continue to grow out of the rich heritage of our past. They are being planned now — 1975 — for the future. When we think about this and say it over and over the excitement and challenge grows and will come to its climax when we gather for convention and hammer out just what it is we want the world to know about us — the doctor's wife. Let's let everyone know that we are not afraid as our early founders were not afraid. Let's let everyone know that we can meet the challenge of life as we must live it every day. Let's let everyone know that we believe in all of the tomorrows.

Come to Atlantic City in June, 1975. Come well informed. Come with enthusiasm. Come ready to participate in an open discussion. Come with loyalty to our heritage but with your eyes on the year 2,000.

Dayton, my home, has produced several true pioneers. Among them none more widely quoted than Charles F. Kettering, the scientist-inventor. He sums everything up for us in the words with which I close — (may I say, he knew nothing about woman's lib when he made his statement. He uses the term man in its beautiful sense of oneness). Here in Nebraska, In May 1975 as you celebrate 50 years of auxiliary life remember his words:

Nothing ever built arose to touch the skies unless some man dreamed that it should, some man believed that it could and some man willed that it must.

Happy Anniversary!

Mucinous Cystadenoma in an Adolescent: A Case Report

S. R. THOMAS, M.D.
R. F. BROUILLETTE, M.D.
and
R. C. SEILER, M.D.

MUCINOUS cystadenomas are common ovarian neoplasms, the benign and malignant variants comprising approximately 19% of all ovarian tumors diagnosed at laparotomy. They occur most frequently in the third to fifth decade and range in average size between 15 to 30 cm, and weigh between 2000 and 4000 gm. The following represents a case report of a large mucinous cystadenoma in an adolescent female.

The patient is a 16 year old white unmarried female nulligravida high school student who presented to our clinic complaining of swelling and fullness of her abdomen of two months duration. Her last normal menses was 45 days prior to this visit and she had been having light vaginal bleeding every two weeks since that time. The abdominal/pelvic fullness had been gradually increasing over this time frame. She denied any sexual exposure. Menarche was at age 13.

Past Medical History: Usual childhood illnesses. No previous operations or hospitalizations.

Family History: Showed mother (38), father (37), three brothers (14, 10, 4) and a sister (12) in good health. A grandfather has ASCVD.

Physical Exam.: The positive findings were confined to abdominal and pelvic exam.

Abdomen: A large nontender mass occupied the lower and midabdomen to just above the umbilicus. It was firm, but not solid. Bowel sounds were normal. No other organomegaly or tenderness was noted.

Pelvic: BSU was normal. Introitus was virginal. The vagina would admit a virginal speculum only to the hymeneal ring, because of a mass. The cervix could be palpated but not visualized. The uterus was not delineated. The mass was consistent in size with a 6 months I.U.P.

Laboratory Data: CBC, UA, Hematest stools x 2, Gravindex, RPR, blood sugar, liver functions, BUN, serum proteins, cholesterol and amylase were all negative or within normal range. Alkaline phosphatase was slightly elevated at 95 units.

Radiological Studies: Chest film was normal. Scout film for I.V.P. revealed a large central mass arising from the pelvis (Fig. 1). The appearance was that of a 5 to 6 months pregnancy, but no fetal skeleton was identified. Urogram revealed relative delay of excretion on the right. There was hydronephrosis and hydroureter on the right, but emptying did occur (Fig. 2). The bladder appeared normal.

Hospital Course and Management: The patient was admitted to the hospital where preoperative evaluation and x-ray studies were performed. On her second hospital day, a diagnostic celiotomy was performed. A large fluid filled right ovarian tumor was drained of 950 ml of seromucinous material with a gallbladder trochar. The tumor,

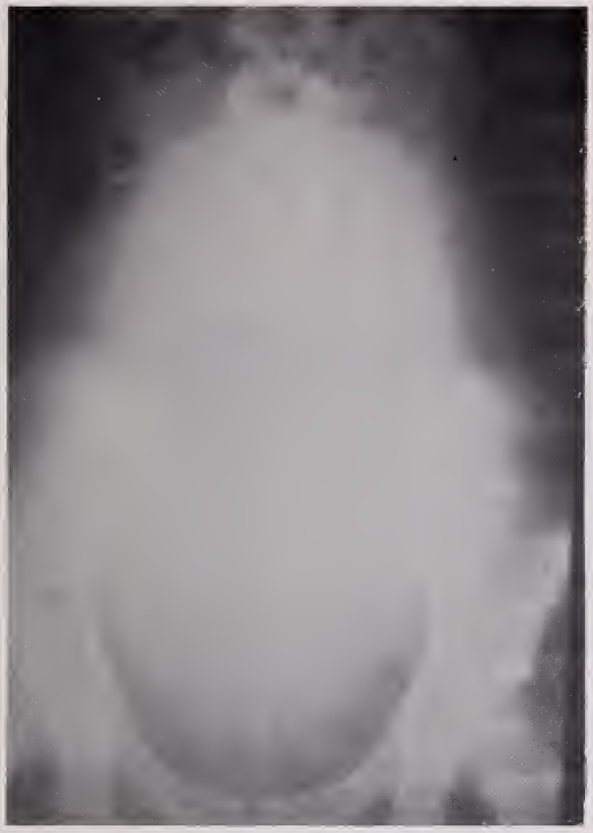

Figure 1 — KUB film showing large central abdomenal mass.

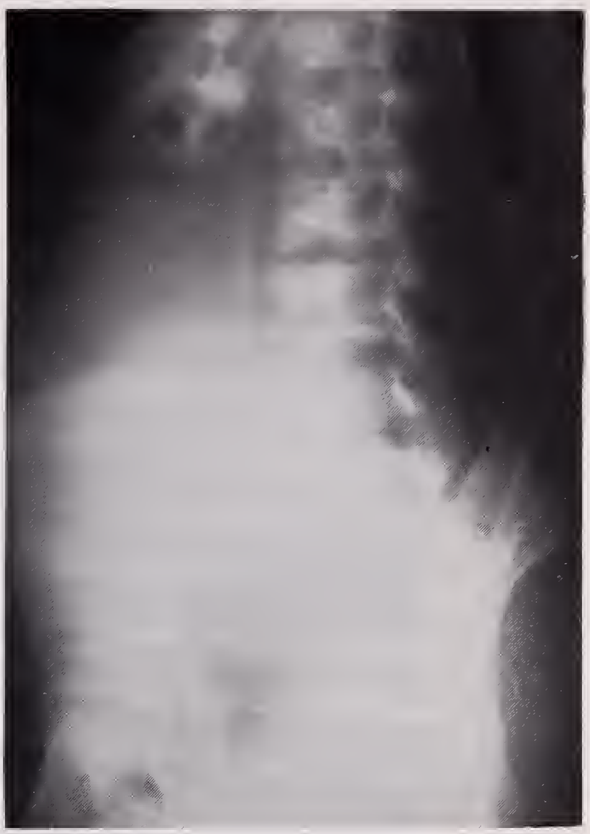

Figure 2 — I.V.P. showed right hydronephrosis and hydroureter.

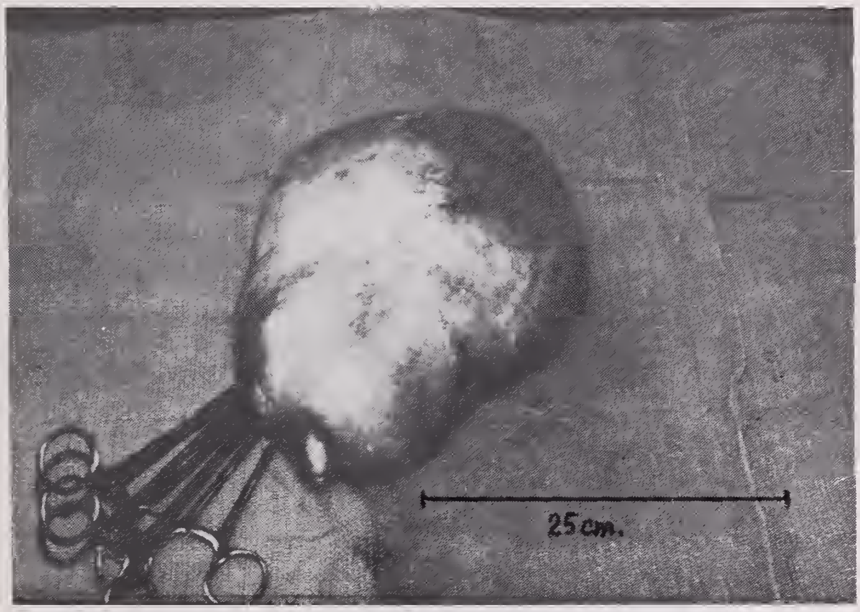

Figure 3 — The tumor measuring 25 x 18 x 7 cm.

measuring 25 x 18 x 7 cm following aspiration was delivered and a right salpingo-oophorectomy performed. The left ovary was inspected and was grossly normal. Her postoperative course was benign, and she was discharged on her sixth postoperative day.

Pathological Study: The postoperative specimen weighed 1590 gm. The tumor was cystic and multiloculated, with individual cysts measuring up to 17 cm in diameter (Fig. 3). Microscopic examination showed all locules to have a similar lining of mucin-forming columnar epithelial cells arranged in an orderly fashion. A few papillary excrescences extended into the large cyst cavities. The locules contained eosinophilic mucoid material (Figs. 4, 5). In the remaining ovarian

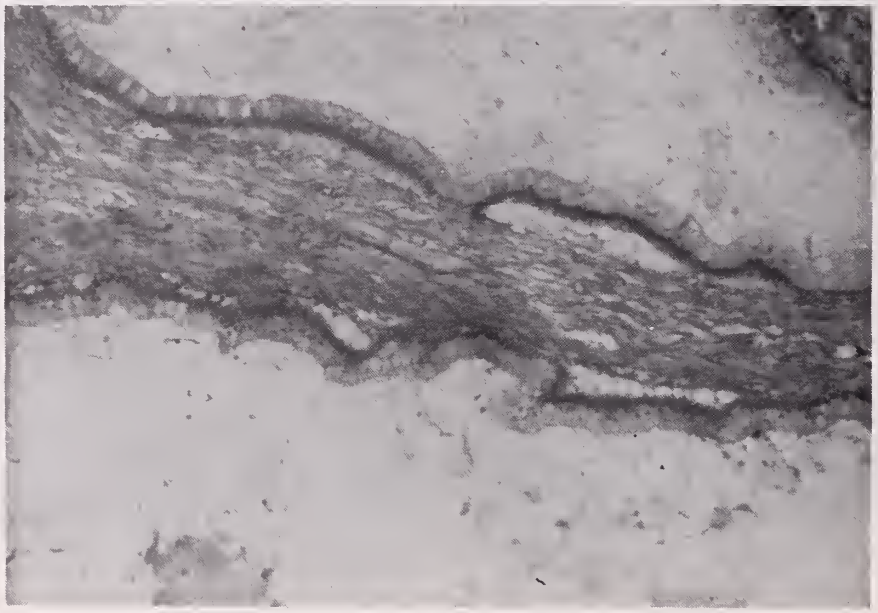

Figure 4 - Photomicrograph showing orderly columnar epithelium

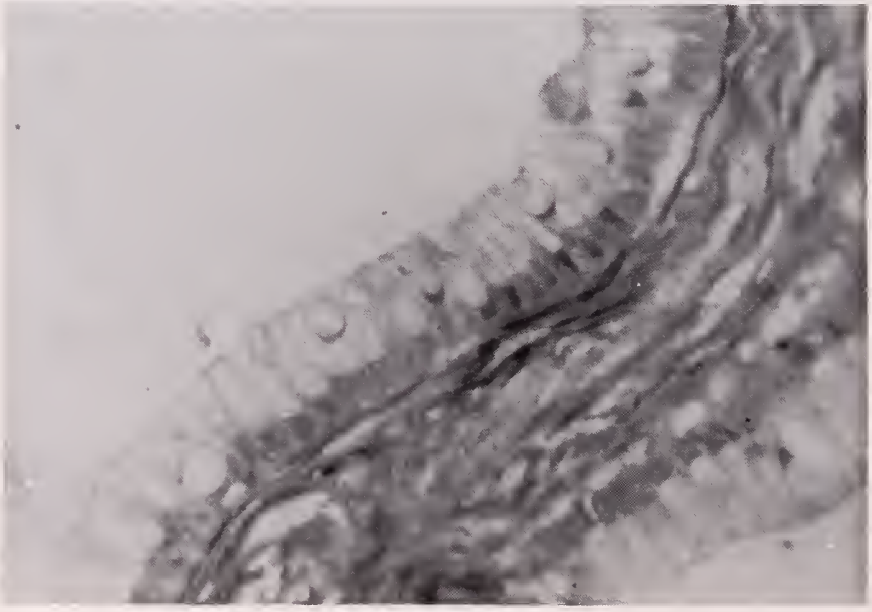

Figure 5 — Photomicrograph of mucin secreting columnar cells

cortex, germinal follicle is identified. No malignant features present. Cell block of the aspirate showed no malignant features.

Clinical Features: Mucinous cystadenoma is the third most common cystic tumor of the ovary. Follicle cysts and serous cysts are more common. They are seldom bilateral (10%) or papillary (10%), and rarely malignant (5-15%). They are usually encountered in the third through fifth decade with the chance of malignancy increasing with age. Malignant variants are more apt to be bilateral and adherent to other organs. Benign cysts are more apt to twist on their pedicle and infarct. If the cyst ruptures, tissue implants may occur on the peritoneal lining and proliferate resulting in pseudomyxoma peritonaei. This is considered by most to occur with malignant tumors only.

Conclusion: A case of a large mucinous cystadenoma in a 16 year old girl is presented.

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President's Page

From many sources we are told that the most important concern about medical care today is its high cost. People are impressed, and properly, with the ability of the physician to do things unheard of a few years ago. In fact, the debate seems to be whether we should do as much as we can and whether it is really ethical to do *all* that we can. Much is made of the assertion that many people have a difficult time finding someone to guard their health and care for their ills, but I wonder what the true facts really are. A few weeks ago, I was asked how many people in Nebraska are more than an hour away from a physician, and I believe when we put it that way medical care is indeed accessible to almost everyone. If we think in terms of miles, there may indeed be many people in Nebraska who are far from a physician or a hospital, but if we think in terms of minutes or hours this distance becomes much less. And I think we must think in those terms. Unfortunately, those who find so much fault with us are unwilling to do this, since their point would be badly dulled if they did so.

We cannot escape the fact that it is becoming increasingly expensive for us to provide good care for our patients. The burden is placed on us, even though physicians' fees represent only about 12% of the money spent for medical and health care. Everyone of us who has practiced for very long has seen a frightening spiral in the cost of hospital care and hospital-based services. There is no doubt that hospitals are caught like everyone else in the increasing cost of materials and supplies, and most especially in the rising salaries paid to those who work in hospitals. As hospitals have come to depend more and more on skilled workers, the competition for these workers has become keener, and hospitals must compete financially to get these people. They have been forced to put on many additional office workers to carry out the programs required by governmental regulations. And the special care units require high-priced people to operate them, not to mention the high cost of the equipment necessary in these units.

Federal programs like PSRO and utilization review are essentially cost-control programs, however their originators might try to give them a more noble purpose. But it appears that like so many plans and schemes that look good on paper, these have fallen far short of whatever their goal might have been. It is very clear that even though we have managed to reduce the length of stay of the average hospitalized patient, and even though we are indeed admitting fewer patients to the hospital so that the hospital occupancy rates are down, the cost of the average hospital stay has increased and we are probably spending about the same amount of money as we did before. Utilization review has run head-on into the financial realities of operating a hospital. Apparently it takes just so much money to maintain the hospital today at the level our patients and we expect, and administrators must find this money as they can, usually by increasing hospital rates.

Although the number of people who have insurance has increased only about 5% in the past year, the number of claims has increased over 20%. And it would appear that in the next year, even though there is

Big Balanced Rock, Chiricahua Mountains, Arizona (approx. 1,000 tons)

und useful in the management of vertigo* associated with ses affecting the vestibular system.

n relieve nausea and vomiting often associated with vertigo.*

sual adult dosage for Antivert/25 for vertigo:* one tablet t.i.d.

so available as Antivert (meclizine HCl) 12.5 mg. scored ts, for dosage convenience and flexibility.

ntivert/25 (meclizine HCl) 25 mg. *Chewable* Tablets for ea, vomiting and dizziness associated with motion sickness.

SUMMARY OF PRESCRIBING INFORMATION

DICATIONS. Based on a review of this drug by the National Academy of nces—National Research Council and/or other information, FDA has classified indications as follows:

ffective: Management of nausea and vomiting and dizziness associated with ion sickness.

ossibly Effective: Management of vertigo associated with diseases affecting the ibular system.

inal classification of the less than effective indications requires further estigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who mav become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

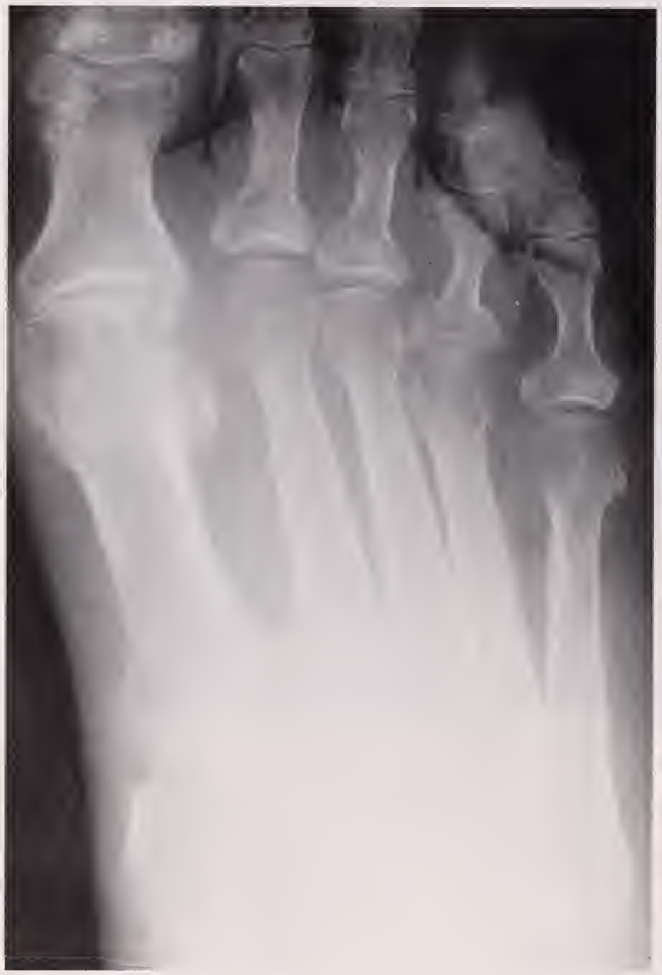
ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

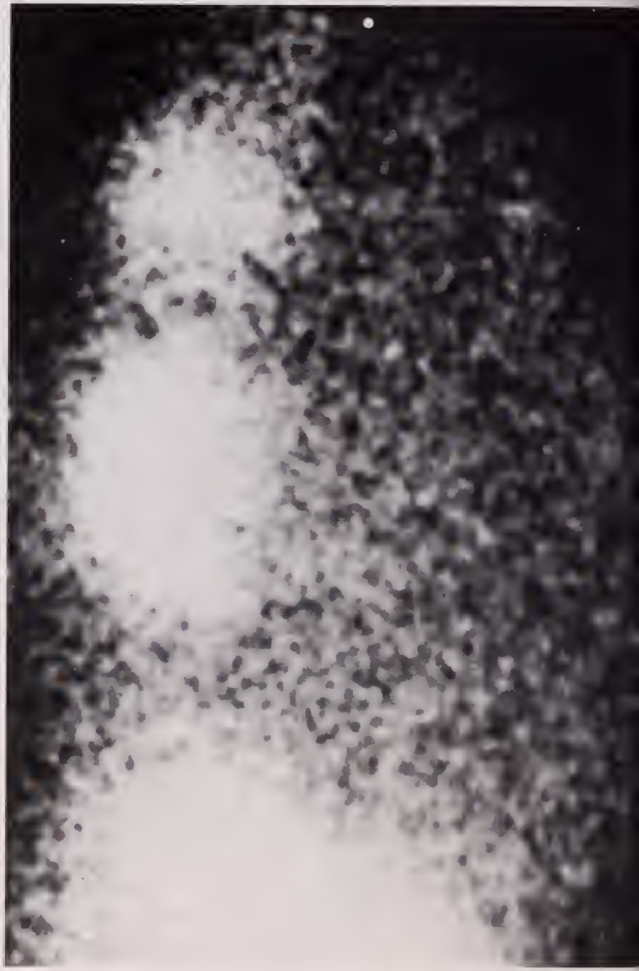
ROERIG Pfizer
A division of Pfizer Pharmaceuticals
New York, New York 10017

Antivert®/25
(meclizine HCl) 25 mg. Tablets
for vertigo*

VISUAL FOCUS
ON
ACUTE GOUTY ARTHRITIS



Foot of patient with acute gouty arthritis as seen by conventional x-ray.



Scintiphotogram of same foot reflects inflammatory process.

The scintiphotograph on the right shows increased uptake of radiotechnetium polyphosphate in the metatarsophalangeal joint and the proximal interphalangeal joint of the great toe of a patient with acute gout arthritis. This increased uptake probably results fro increased vascularity in the affected areas.

For a more detailed description of scintiphotography, see "addendum" at right.

THERAPEUTIC FOCUS
ON

CAPSULES, 25 mg and 50 mg

INDOCIN®

INDOMETHACIN | MSD)

*helps relieve pain
and other symptoms
of inflammation
in acute
gouty arthritis
in selected patients*

INDOCIN is a potent drug with anti-inflammatory, antipyretic, and analgesic properties. It should not be used in conditions other than those recommended. Although INDOCIN does not alter the progressive course of the underlying disease, in selected patients with acute gouty arthritis it has been found highly effective in relieving pain and in reducing fever, swelling, and tenderness.

MSD
MERCK
SHARP&
DOHME

For a brief summary of prescribing information, please see following page.

addendum

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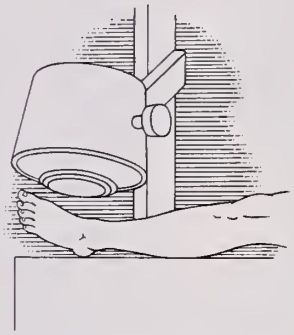
Facts about Scintiphotography



In recent years a variety of radiopharmaceuticals have been employed to aid in the diagnosis of bone and joint disorders. The joint-imaging technique consists of injecting technetium polyphosphate intravenously, and imaging is performed with the scintillation camera two hours after the administration of the radionuclide. In general, for joint surveying, the shoulders, elbows, hands, wrists, knees, ankles, feet, and vertebral column are mapped. The entire scanning process takes approximately one hour. The criterion for a positive image is a higher concentration of radioactivity in a joint region than in adjacent nonarticular bone. In effect, each patient serves as his own control.

INDOCIN®
(INDOMETHACIN | MSD)

helps relieve pain
and other symptoms
of inflammation
in acute
gouty arthritis
in selected patients

IMPORTANT NOTE: INDOCIN (Indomethacin, MSD) cannot be considered a simple analgesic and should not be used in conditions other than those recommended. The drug should not be prescribed for children because safe conditions for use have not been established.
Because of the high potency of the drug and the variability of its potential to cause adverse reactions, the following are strongly recommended: 1) the lowest possible effective dose for the individual patient should be prescribed. Increased dosage tends to increase adverse effects, particularly in doses over 150-200 mg per day, without corresponding clinical benefits; 2) careful instructions to, and observations of, the individual patient are essential to the prevention of serious and irreversible, including fatal, adverse reactions, especially in the aging patient.
Contraindications: Children 14 years of age and under; pregnant women and nursing mothers; active gastrointestinal lesions or history of recurrent gastrointestinal lesions; allergy to aspirin or indomethacin.
Warnings: *Gastrointestinal Effects:* Because of the occurrence and, at times, severity of gastrointestinal reactions, be continuously alert for any sign or symptom signaling a possible gastrointestinal reaction. The risks of continuing therapy with INDOCIN in the face of such symptoms must be weighed against the possible benefits to the individual patient. Gastrointestinal effects may be reduced by giving the drug immediately after meals, with food, or with antacids. Use greater care in aging patients.
Ocular Effects: Corneal deposits and retinal disturbances, including those of the macula, have been observed in some patients on prolonged therapy. Discontinue therapy if such changes are observed. Ophthalmologic examination at periodic intervals is desirable in patients on prolonged therapy. *Central Nervous System Effects:* INDOCIN may aggravate psychiatric disturbances, epilepsy, and parkinsonism, and should be used with considerable caution in patients with these conditions. If severe CNS adverse reactions develop, discontinue the drug.
Precautions: Blurred vision may be a significant symptom that warrants a thorough ophthalmologic examination. Patients should be cautioned about engaging in activities requiring mental alertness and motor coordination as driving a car. Headache which persists despite dosage reduction requires complete cessation of the drug. May mask the usual signs and symptoms of infection; therefore, the physician must be continually on the alert for this and should use the drug with extra care in the presence of existing controlled infection. After the acute phase of the disease is under control, an attempt to reduce the daily dose should be made repeatedly until the patient is off entirely.
Adverse Reactions: *Gastrointestinal Reactions:* Single or multiple ulcerations of the esophagus, stomach, duodenum, or small intestine, including perforation and hemorrhage, with fatalities in some instances; rarely, intestinal ulceration has been associated with stenosis and obstruction; gastrointestinal bleeding without obvious ulcer formation; perforation of preexisting sigmoid lesions (diverticulum, carcinoma, etc.); rarely, increased abdominal pain in ulcerative colitis patients or development of ulcerative colitis and regional ileitis; gastritis, which may persist after the cessation of the drug; nausea, vomiting, anorexia, epigastric distress, abdominal pain, and diarrhea.
Eye Reactions: Corneal deposits and retinal disturbances, including those of the macula, have been observed on prolonged therapy; blurring of vision.
Hepatic Reactions: Rarely, toxic hepatitis and jaundice, including some fatal cases.
Hematologic Reactions: Aplastic anemia, hemolytic anemia, bone marrow depression, agranulocytosis, leukopenia, and thrombocytopenic purpura. Since some patients manifest anemia secondary to obvious or occult gastrointestinal bleeding, appropriate blood determinations are recommended.
Hypersensitivity Reactions: Acute respiratory distress, including dyspnea and asthma; angiitis; pruritus; urticaria; angioedema; skin rashes; purpura.
Ear Reactions: Hearing disturbances, deafness, tinnitus.
Central Nervous System Reactions: Psychic disturbances including psychotic episodes, depersonalization, depression, and mental confusion; coma; convulsions; peripheral neuropathy; drowsiness; lightheadedness; dizziness; syncope; headache.
Cardiovascular-Renal Reactions: Edema, elevation of blood pressure, hematuria.
Dermatologic Reactions: Loss of hair, erythema nodosum.
Miscellaneous: Rarely, vaginal bleeding, hyperglycemia, glycosuria, ulcerative stomatitis, and epistaxis.
Note: In patients receiving probenecid, plasma levels of indomethacin are likely to be increased.
Supplied: Capsules containing 25 mg indomethacin each, in single-unit packages of 100 and bottles of 100 and 1000; capsules containing 50 mg indomethacin each, in single-unit packages of 100 and bottles of 100.
For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

MSD
MERCK
SHARP&
DOHME

no increase in health insurance coverage, there will be nearly another 20% increase in claims. It is interesting to look at this a bit more closely. Although there was a drop of about 5% in the number of services provided to insured patients receiving in-hospital medical care, the cost of these services increased about 16% in 1974 compared to the previous year. In the same time there was an increase of nearly 20% in pathology services and over 12% in x-ray services. Obstetrical services increased by about 9% and the amount paid for this service increased about 20%. The figures for surgery were 4% and 8% respectively. I believe one can see that there has been a very real increase in the cost of obstetrics and non-surgical medical care, and especially in utilization rates for x-ray and pathology. Obviously, we are running more diagnostic tests, I hope to improve the accuracy of our diagnoses, and certainly as an aspect of "defensive medicine."

Since it appears there may already be a schedule of implementation of national health insurance, we might ask whether we should be doing anything about this at all, and what is it that we should do? I believe it is time for hospitals and their medical staffs to take a very critical and analytical look at what goes on in the hospital. It is time for a very innovative change to be made in what is provided to the hospitalized patient. Does the physician need to be more selective in the diagnostic examinations which he orders? Should hospitals be developing differential care levels, with corresponding differences in cost? I believe the attending physician must take a sincere interest in the size of his patient's hospital bill, and he should be willing to discuss this with the patient whenever necessary. Since it is we who put patients in the hospital and order medication, tests, diets, and the rest, we do have some sort of control over the size of the bill. I believe we must take an active role in initiating discussions with hospital administrators and governing boards about how we can control the cost of an illness. These discussions must be as imaginative as possible: they must bridge across all of our usual ideas about what a hospital needs to do and press toward what a hospital *does not* need to do. There are many people with many ideas about this, and we must bring them together. It is far better that we who know something about the care of sick people should work on cost control than someone thinking *only* about cost.

Warren Bosley, M.D.

The Auxiliary

MEDICAL AUXILIARY GOALS FOR 1976 — LEGISLATION

Our primary goal for the year 1976 in Nebraska Medical Auxiliary legislation should be to remove some of the apathy toward the subject of legislation itself. We must try to educate and interest those who find any subject, outside of "fun and family," of so little value that they neither read about it or ask about it.

We must try to focus our attention on the importance of knowing what is happening in the medical legal world of today. Our future is there — because our husband's future is there. APATHY must never be due to ignorance! If it is, we have failed our constituency — not the reverse. Therefore we must plan meetings devoted to the explanation and consequences of the current problems and solutions facing the medical Doctor of today. In brief, the following type of summary should be used in group lectures by the local legislative chairperson.

What is legislation: By legal definition, it is the preparation and enactment of laws.

What does the Auxiliary legislative committee do? In brief:

A — keeps abreast of new bills before our legislative bodies.

B — informs state — county — districts of current events and problems facing the members of the medical society as a whole.

C — enlists the help of medical wives to voice opinions on the various topics to their local and state representatives.

What do you know about the current topics of conversation among the medical society and the legislative bodies?

1 — What is P.S.R.O? The initials stand for Professional Standards Review Organization. It was proposed as part of the 1972 Social Security Act, by Senator Wallace Bennett (R-Utah). The entire bill, formally known as HR1, along with its PSRO provision, became law on Oct. 30, 1972. President Nixon described it as a "landmark legislation."

Although very little specific information has been forthcoming from the HEW about PSRO implementation, we can at this point, examine its contents as outlined in the law. From now until Jan. 1st, 1976, the law defines a Professional Standard Review Board as a non profit, professional association or component organization with the following characteristics:

A — Must have licensed MDs and DOs engaged in practice.

B — Claim as members a substantial proportion of the practicing physicians in the area.

C — Must maintain membership on a voluntary basis.

D — No restrictions of dues.

E — Organized to allow for the review of medical services provided by the Social Security Act.

[The Medical Society as we know it today would not qualify as PSRO.]

If, after Jan. 1, 1976, no physician-sponsored PSRO has been established for a particular area, the Dept. of HEW can designate some other organization to assume PSROs responsibility. This other organization can be any public, non-profit or private agency which could perform PSROs function, such as Blue-Cross-Blue-Shield Plan, state or local departments of health, etc.

The purpose of the law is to create a nationwide network of physicians groups to review medical services provided in institutions and paid for by the provisions of the Social Security Act.

2 — What About National Health Insurance: Some type of national health insurance is inevitable in the near future. The questions are: What type? How expensive will it be? Who will pay for it? Who will receive the benefits?

After careful consideration and thorough research, the AMA has proposed a logical solution to the problems of health care financing in America the MEDICAL CREDIT bill (HR4960)

MEDICREDIT is a voluntary health insurance program to provide medical and health care to everyone under 65, regardless of their ability to pay. (It would continue for those over the age of 65 also.) This plan guarantees you the free choice of physician, hospital and other health care institutions. You also choose the way you want to participate in the program: purchasing an insurance policy from a company or membership in one of various group plans. Each plan would be required to meet minimum benefit standards and would have a guaranteed annual renewal.

It is designed to give minimum financial help to those who need it most and minimum help, to those who are able to pay for all or part of their health care.

3 — What is Peer Review? America's physicians also recognize the importance of peer review or practicing physicians evaluating the quality and efficiency of services rendered by other physicians. For this reason, the AMA introduced its own legislation in the area, entitled, "Peer Review Organization Act." (HR8684). This bill would provide a system of review of need, cost, and quality of medical services provided in federal health programs. Physicians can examine all the necessary circumstances and make the determinations that, in the long run, only physicians are qualified to make.

4 — What is HMO? The Health Maintenance Organization and Resources Development Act (HR11728) was introduced in Congress on Nov. 11th, 1971 by Roy (D-Kansas) and since that time both Houses of Congress have conducted extensive hearings on the legislation. HMO is really contract medicine. There is really no clear cut definition of an HMO, but they have been proposed as "medical organizations established to meet the health care needs of a defined population which pays for operation of the organization on a pre-determined, per-capita basis." In theory, the institution should be open around the clock, seven days a week, and the emphasis would be upon health maintenance rather than on the treatment of acute sickness. The idea behind this is that the maintenance of health would yield substantial savings to the patient.

There are many questions that need answering — such as the type of benefits, enrollment fees, open or closed enrollment, consumer acceptance and accessibility of care, to name a few, before HMOs become a reality. (Many of the ones now in operation are having difficulty in staying solvent — some have gone bankrupt. The AMA and HEW are studying the whole program to see what aspects can be used over the long run.)

5 — What is the LEGS line? The initials stand for Legislative Effort Group System. It is the Medical Auxiliary's own idea for helping medical groups get into law the bills they think most helpful to the profession and the patient. Members are asked to help in many different areas of the political arena. It is an all volunteer effort and we need more help as the problems of legislation become more difficult over the years.

What can you do to help? Don't just **think** you should — get interested enough to really want to. Don't think you have to give a lot of time and effort — a little will do! Stay informed. Wives of men in other fields of endeavor know how much their husbands make an hour, what union they belong to, how much they pay in union dues, and what the union stands for. Farmer's wives know what the cattle futures are — or the current wheat prices — or how much overhead there is in running a farm or cattle feeding business. What do you know of your future? How well can you discuss questions that you are asked by other people? WHY NOT STAY INFORMED!

Mrs. Sheridan Anderson (Ruth)
Legislation Chairperson
Nebraska Medical Association Auxiliary

Between Cases

Quote Unquote.

Your pain is the breaking of the shell that encloses your understanding.

Gibran

On Advice [1]

Go to the big center; there's a doctor for every cell in your body. Then come home where there's somebody who cares.

A friend.

I Read It Somewhere.

Executioners used to be surgeons.

I'll Buy That.

Visual acuity, right eye: patient has a prosthetic eye and has no light perception on the right.

Words We Can Do Without.

Crushiably; it is to be noted that; truthfulness; schema; multiple; integument.

Quote Unquote.

When I wish to interrupt an affair, I close the drawer which contains it, and open that which contains another. They do not mix together, and do not fatigue me nor inconvenience me. If I wish to sleep, I shut up all the drawers, and I am asleep.

Napoleon

On Advice [2]

Galen advised suture of the abdominal wall with one suture for all layers.

Section On Statistics.

80,000 Americans die of lung cancer each year.

On Geriatrics.

If you pass twenty, you'll get to be a hundred, they say.

Sillitoe: The View.

Heard On TV.

Transcontinental medication.

Quote Unquote.

What does a woman want?

Freud

On Improving The Breed.

I know two things about the horse
And one of them is rather coarse.

Anon.

Medicine, Here And There.

Could the question arise of a doctor's right to treat?

Solzhenitsyn: Cancer Ward.

What Does It Mean?

Skeleton: a dried body, a mummy.

Section On Obscenity.

You know we condemn lowness of speech, and justly so; for the gift of speech is peculiar to man, and a boon which God granted to him, that he may be distinguished from the rest of living creatures. This gift, therefore, which God gave us in order to enable us to perfect ourselves, to learn and to teach, must not be employed in doing that which is for us most degrading and disgraceful. We must not imitate the songs and tales of ignorant and lascivious people.

Maimonides: Guide of the perplexed.

The Diagnosis.

Eosinophilia secondary to spurious lab value.

The Population Explosion.

The population of the earth in 1970 is estimated to be 3.68 billion.

It doubles in 35 years.

What Does It Mean?

I'll double-check that. That means I will now check it for the first time.

—F.C.

In Memoriam

KARL S. J. HOHLEN, M.D.

Doctor Hohlen was born in Germany on April 24, 1886; he passed away in Lincoln, Nebraska on December 16, 1975; he was 89 years old. He was brought to the United States in 1887, and later attended Northwestern University School of Pharmacy and received an M.D. from the Chicago College of Medicine and Surgery (Loyola University) in 1908. His postgraduate work was at Neurological Institute, Vienna, 1929; at Foerster Neurological Clinic, Breslow; and the Mayo Clinic.

He was married to Mina E. Kauf (deceased, 1943), and later to Lydia S. Hirschfeld, in 1949. He had one son, Karl Siegfried.

Doctor Hohlen's internship was at Francis Willard Hospital in Chicago. He practiced in Hastings, Nebraska from 1909 to 1912, when he moved to Lincoln. He was President of the Nebraska State Medical Association from 1930 to 1931. He was Medical Examiner for the Selective Draft Board from 1917 to 1945. He had also been President of the Lancaster County Medical Association. He was a Fellow of the American College of Surgeons, and of the International College of Surgeons.

Doctor Hohlen received his fifty year membership pin in 1958. He is survived by his wife Lydia; son Karl, of St. Louis; four grandchildren; and a great-grandchild.

It was my pleasure to know Karl Hohlen for a long time, and to work with him. He was a fine surgeon and could operate anywhere in the body. He was a gentleman and, I know very well, a humanitarian. I know, too, that he helped other doctors to an extent that can never be repaid. He was a historian, and we have spent hours together in his den, telling stories to each other, but mostly to me, while I listened to this wonderful person who was my friend. He has told me his last story, and I am sad.

Karl was once my patient, and a very good one. But he was a fine doctor; there are only good doctors and bad doctors, and Karl Hohlen was a wonderful doctor. He was colorful, he was skilled, he was concerned for his patients, he reached into the past and he looked into the future. He helped many, and some owe their careers to him.

He was my friend. Goodbye, Karl.

Frank Cole, M.D.

Welcome New Members

John D. Ashley, M.D.
401 East "C" Street
North Platte, Nebraska 69101

James Bane, M.D.
Slagle Clinic
Alliance, Nebraska 69301

J. Kemper Campbell, M.D.
600 North Cotner
Lincoln, Nebraska 68505

Nallathambi Charles, M.D.
Newman Grove
Nebraska 68758

Padmini Charles, M.D.
Newman Grove
Nebraska 68758

Gary L. Conell, M.D.
810 Reid Avenue
North Platte, Nebraska 69101

Donald J. Destache, M.D.
P.O. Box 2086
Hastings, Nebraska 68901

Stuart Embury, M.D.
Holdrege
Nebraska 68949

Klaus Hartmann, M.D.
2102 Sandstone
Lincoln, Nebraska 68512

Frank C. Koranda, M.D.
700 Eastside Boulevard
Hastings, Nebraska 68901

George J. Lytton, M.D.
Hastings Regional Center
Hastings, Nebraska 68901

Newton E. Mack, M.D.
Route 4, Lake Maloney
North Platte, Nebraska 69101

William R. Marsh, M.D.
2525 South 135th Avenue
Omaha, Nebraska 68144

Harry McFadden, M.D.
Nebraska City
Nebraska 68410

Gunther Nashelsky, M.D.
210 West 39th Street
Scottsbluff, Nebraska 69361

G. Tom Surber, M.D.
1109 Norfolk Avenue
Norfolk, Nebraska 68701

Our Medical Schools

Continuing education.

Three courses are on the March calendar at the Center for Continuing Education at the University of Nebraska Medical Center.

A program will be held March 17, marking the scientific dedication of the Lions Eye Institute on the Medical Center campus.

Guest speakers will be Dr. Norman Jaffe, clinical professor, department of ophthalmology, Bascom Palmer Eye Institute, Miami, Florida; Dr. Carl Kupfer, director, National Eye Institute of the National Institutes of Health; and Dr. Irving H. Leopold, chairman of the department of ophthalmology, California School of Medicine, University of California at Irvine.

Dr. Jaffe will implant several intraocular lenses and participants will be able to view this live presentation from the Center for Continuing Education.

The registration fee of $40 includes coffee, lunch, banquet and other amenities.

Dr. Raymond E. Records, chairman of the department of ophthalmology at the Medical Center, is course coordinator.

A course on March 18 and 19, will be devoted to obstetrics and gynecology.

Guest faculty includes Dr. Frederic D. Frigoletto, Jr., associate professor of obstetrics and gynecology, Boston Hospital for Women; Dr. Wayne L. Johnson, professor and chairman of obstetrics and gynecology, State University of New York (Buffalo); Dr. James J. Kolars, Fargo, North Dakota; Dr. Philip B. Mead, assistant professor of obstetrics and gynecology, University of Vermont College of Medicine; Catherine L. Myers, nurse practitioner and coordinator of the family planning department, St. Paul-Ramsey Hospital; Dr. John M. O'Lane, clinical associate professor of obstetrics and gynecology, Wayne State University (Detroit); Dr. Roy M. Pitkin, professor of obstetrics and gynecology, University of Iowa; Dr. Martin L. Stone, professor and chairman of the department of obstetrics and gynecology, New York Medical College; Ruth M. Youngberg, nurse consultant, Nebraska State Department of Health, Division of Maternal and Child Health.

Coordinators of the course, co-sponsored by Creighton University School of Medicine and the University of Nebraska Medical Center, are Dr. Joseph C. Scott, Jr., and Dr. Robert Luby, chairmen respectively of the Nebraska and Creighton departments of obstetrics and gynecology.

The registration fee of $60 includes coffee, lunch and other amenities.

A course designed for physicians interested in the immediate management of emergency patients in hospitals will be held March 25 and 26.

The faculty represents various medical specialties who will present the practical aspects of evaluation and the initial treatment or urgent medical and surgical problems of their specialties.

Dr. Wilbur A. Muehlig, associate professor of surgery and neurology at the Medical Center, is course coordinator.

Registration fee is $60 for physicians and $40 for nurses and other allied health personnel.

Picture Gallery

Area Meetings on Professional Liability Legislation

Warren G. Bosley, M.D., NMA President, addressing group assembled in Grand Island.

Grand Island Group.

Warren G. Bosley, M.D., NMA President, addressing orientation session held in Lincoln.

James. H. Dunlap, M.D., Member NMA Policy Committee and Chairman of the NMA Ad-Hoc Steering Committee on Professional Liability, addressing group assembled in Lincoln.

Mr. Flavel A. Wright, NMA Legal Counsel, addressing group assembled in Lincoln.

Mr. Flavel A. Wright, NMA Legal Counsel, addressing group assembled in Lincoln.

Lincoln Group.

Mr. Kenneth E. Neff, Executive Secretary of the NMA, addressing group assembled in Lincoln.

Look at all the Continuing Medical Education opportunities the AMA has planned for you in 1976!

cme

More and more physicians are interested in updating their medical skills and knowledge in the interest of better patient care. And, an ever-increasing number of state medical associations, specialty societies, and other medical groups are stipulating continuing medical education as a membership requirement.

In response to these developments, the AMA has greatly expanded its C.M.E. programs.

The nine regional meetings, multidisciplinary in approach, are of interest to a variety of medical specialists and physicians in primary care. Scheduled on weekends, they make it easier and more convenient for you to continue your education. Then there are the two AMA conventions. The Annual *alone* features 53 postgraduate courses, 41 3-hour symposia, the new telecourses and many, many other features in continuing education.

All courses at regionals and conventions are accredited on a hour-for-hour basis in Category I.

The AMA's Physician's Recognition Award fulfills C.M.E. requirements of many organizations, state laws and individual physicians.

REGIONAL C.M.E. MEETINGS

Jan. 17, 18	Tulsa, Okla.
Feb. 28, 29	Denver, Colo.
March 17-20	Lexington, Ky.
April 3, 4	Indianapolis, Ind.
April 3, 4	Detroit, Mich.
May 9	Dallas, Tex.
Sept. 4, 5	Jackson Hole, Wyo.
Sept. 11, 12	Milwaukee, Wis.
Sept. 10-12	Portsmouth, N.H.

125th ANNUAL CONVENTION

June 26-30	Dallas, Tex.

30th CLINICAL CONVENTION

Dec. 4-7	Philadelphia, Pa.

For more information about meetings, courses, accommodations, tuition fees, etc., write for a free course catalogue.

AMA
CONTINUING MEDICAL EDUCATION

Council on Scientific Assembly
American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610

WHEN DIET
ALONE FAILS TO
LOWER
CHOLESTEROL

CONSIDER

Choloxin®

(Sodium Dextrothyroxine)

Proven Cholesterol-Lowering Adjunct to Diet.

n effective agent for low density lipoproteins in uthyroid, Non-Cardiac Patients.

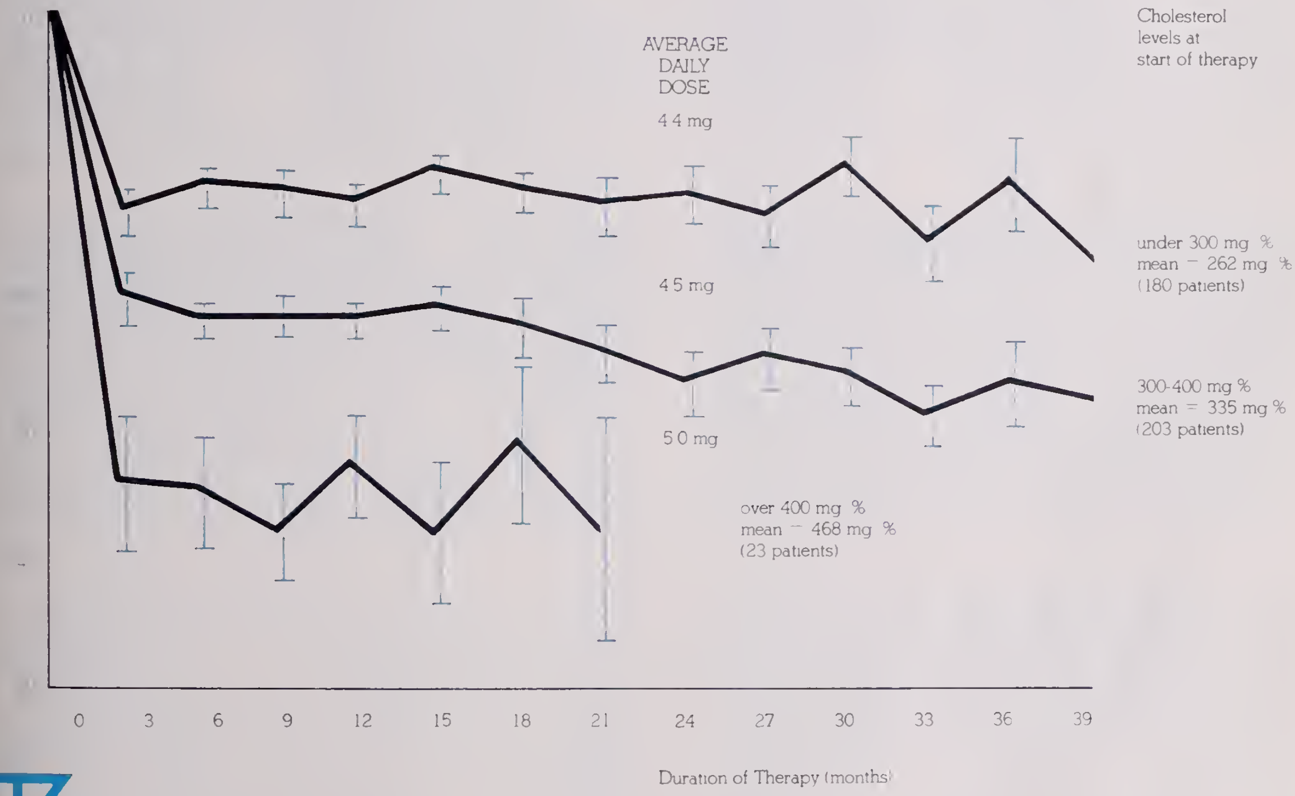
HOLOXIN® (Sodium Dextrothyroxine) is the conenient and practical way to manage the hard-toanage patient who doesn't always follow the diet egimen that you've outlined.

onvenient once-a-day dosage encourages patient ooperation, and it's economical for long-term erapy.

AN IMPORTANT NOTE:
It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.

CHOLOXIN (Sodium Dextrothyroxine) is a thyroid analogue which effectively lowers elevated serum cholesterol 15 to 35% (see chart below) in low density lipoproteins.

CHOLOXIN (Sodium Dextrothyroxine) has undergone ten years of clinical trials and seven years of practice. The clinical trials consisted of 337 clinical studies involving over 3,000 hypercholesterolemic non-cardiac patients. It is among the most thoroughly evaluated drugs ever presented to physicians.



NOT ALL PATIENTS ARE REPRESENTED AT EACH TIME INTERVAL

NOTE:
See following page for full prescribing information.

LINT LABORATORIES
IVISION OF TRAVENOL LABORATORIES, INC.
eerfield, Illinois 60015

Choloxin
(Sodium Dextrothyroxine)

Effectively Lowers Elevated Cholesterol With Convenient Once-A-Day Dosage

Four strengths 1, 2, 4, and 6 mg are available making the scored tablet regimen a flexible dosage system. And, for most patients, CHOLOXIN tablets offer once-a-day dosage

CHOLOXIN* (sodium dextrothyroxine) Single-Tablet-A-Day Dosage Schedules

See prescribing information in package insert reproduced below

	Starting Dosage	Increased Monthly by	Usual Maintenance	Maximal Recommended
Adult Hypercholesterolemic	1 0-2 0 mg	1 0-2 0 mg	4 0-8 0 mg	4 0-8 0 mg
Pediatric Hypercholesterolemic	0 05 mg / kg body weight	0 05 mg / kg	0 1 mg / kg body weight	4 0 mg
Hypothyroid Cardiac	0 5 : 1 0 mg	1 0 mg	4 0 mg	4 0 mg

Description
CHOLOXIN (sodium dextrothyroxine) is the sodium salt of the dextrorotatory isomer of thyroxine It is chemically described as D-3 5 3 5 -tetraiodothyronine sodium salt

Actions
The predominant effect of CHOLOXIN (sodium dextrothyroxine) is the reduction of serum cholesterol levels in hyperlipidemic patients Beta lipoprotein and triglyceride fractions may also be reduced from previously elevated levels

Most of the available evidence indicates that CHOLOXIN stimulates the liver to increase catabolism and excretion of cholesterol and its degradation products via the biliary route into the feces Cholesterol synthesis is not inhibited and abnormal metabolic end-products do not accumulate in the blood

Indications
This is not an innocuous drug Strict attention should be paid to the indications and contraindications

CHOLOXIN (sodium dextrothyroxine) is an antilipidemic agent used as an adjunct to diet and other measures for the reduction of elevated serum cholesterol (low density lipoproteins) in euthyroid patients with no known evidence of organic heart disease

The drug is also indicated in the treatment of hypothyroidism in patients with cardiac disease who cannot tolerate other types of thyroid medication **Before prescribing, note the following Results from a randomized clinical study have indicated a possible adverse effect when CHOLOXIN (sodium dextrothyroxine) is administered to a patient receiving a digitalis preparation There may be an additive effect. This additive effect may possibly stimulate the myocardium excessively in patients with significant myocardial impairment. CHOLOXIN (sodium dextrothyroxine) dosage should not exceed 4 mg per day when the patient is receiving a digitalis preparation concomitantly Careful monitoring of the total effect of both drugs is important**

It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question

Contraindications
The administration of CHOLOXIN (sodium dextrothyroxine) to euthyroid patients with one or more of the following conditions is contraindicated

1 Known organic heart disease including angina pectoris history of myocardial infarction cardiac arrhythmia or tachycardia either active or in patients with demonstrated propensity for arrhythmias rheumatic heart disease history of congestive heart failure and decompensated or borderline compensated cardiac status
2 Hypertensive states (other than mild labile systolic hypertension)
3 Advanced liver or kidney disease
4 Pregnancy
5 Nursing mothers
6 History of iodism

Warnings
CHOLOXIN (sodium dextrothyroxine) may potentiate the effects of anticoagulants on prothrombin time Reductions of anticoagulant dosage by as much as 30% have been required in some patients Consequently, the dosage of anticoagulants should be reduced by one-third upon initiation of CHOLOXIN (sodium dextrothyroxine) therapy and the dosage subsequently readjusted on the basis of prothrombin time. The prothrombin time of patients receiving anticoagulant therapy concomitantly with CHOLOXIN (sodium dextrothyroxine) therapy should be observed as frequently as necessary, but at least weekly during the first few weeks of treatment.

In the surgical patient it is wise to consider withdrawal of the drug two weeks prior to surgery if the use of anticoagulants during surgery is contemplated

When CHOLOXIN (sodium dextrothyroxine) is used as thyroid replacement therapy in hypothyroid patients with concomitant coronary artery disease (especially those with a history of angina pectoris or myocardial infarction) or other cardiac disease treatment should be initiated with care Special consideration of the dosage schedule of CHOLOXIN (sodium dextrothyroxine) is required This drug may increase the oxygen requirements of the myocardium especially at high dosage levels Treated subjects with coronary artery disease must be seen at frequent intervals If aggravation of angina or increased myocardial ischemia cardiac failure or clinically significant arrhythmia develops during the treatment of hypothyroid patients the dosage should be reduced or the drug discontinued

Special consideration must be given to the dosage of other thyroid medications used concomitantly with CHOLOXIN (sodium dextrothyroxine) As with all thyroactive drugs hypothyroid patients are more sensitive to a given dose of CHOLOXIN (sodium dextrothyroxine) than euthyroid patients

Epinephrine injection in patients with coronary artery disease may precipitate an episode of coronary insufficiency This condition may be enhanced in patients receiving thyroid analogues These phenomena should be kept in mind when catecholamine injections are required in sodium dextrothyroxine-treated patients with coronary artery disease

Since the possibility of precipitating cardiac arrhythmias during surgery may be greater in patients treated with thyroid hormones it may be wise to discontinue CHOLOXIN (sodium dextrothyroxine) in euthyroid patients at least two weeks prior to an elective operation During emergency surgery in euthyroid patients and in surgery in hypothyroid patients in whom it may not be advisable or possible to withdraw therapy the patients should be carefully observed

There are reports that sodium dextrothyroxine in diabetic patients is capable of increasing blood sugar levels with a resultant increase in requirements of insulin or oral hypoglycemic agents Special attention should be paid to parameters necessary for good control of the diabetic state in dextrothyroxine treated subjects and to dosage requirements of insulin or other antidiabetic drugs If sodium dextrothyroxine is later withdrawn from patients who required an increase of insulin (or oral hypoglycemic agents) dosage during its administration the dosage of antidiabetic drugs should be reduced and adjusted to maintain good control of the diabetic state

When either or both impaired liver or kidney function are present the advantages of CHOLOXIN (sodium dextrothyroxine) therapy must be weighed against the possibility of deleterious results

Usage in Women of Childbearing Age
Women of childbearing age with familial hypercholesterolemia or hyperlipemia should not be deprived of the use of this drug it can be given to those patients exercising strict birth control procedures Since pregnancy may occur despite the use of birth control procedures administration of CHOLOXIN (sodium dextrothyroxine) to women of this age group should be undertaken only after weighing the possible risk to the fetus against the possible benefits to the mother Teratogenic studies in two animal species have resulted in no abnormalities in the offspring

Precautions
It is expected that patients on dextrothyroxine therapy will show greatly increased serum protein-bound iodine levels These increased serum PBI values are evidence of absorption and transport of the drug and should NOT be interpreted as evidence of hypermetabolism similarly they may not be used for titrating the effective dose of CHOLOXIN (sodium dextrothyroxine) PBI values in the range of 10 to 25 mcg in treated patients are common

If signs or symptoms of iodism develop during CHOLOXIN (sodium dextrothyroxine) therapy the drug should be discontinued

A few children with familial hypercholesterolemia have been treated with CHOLOXIN (sodium dextrothyroxine) for periods of one year or longer with no adverse effects on growth However it is recommended that the drug be continued in patients in this age group only if a significant serum cholesterol lowering effect is observed

Adverse Reactions
The side effects attributed to dextrothyroxine therapy are for the most part due to increased metabolism and may be minimized by following the recommended dosage schedule Adverse effects are least commonly seen in euthyroid patients with no signs or symptoms of organic heart disease the incidence of adverse effects is increased in hypothyroid patients and is highest in those patients with organic heart disease superimposed on the hypothyroid state

In the absence of known organic heart disease some cardiac changes may be precipitated during sodium dextrothyroxine therapy In addition to angina pectoris arrhythmia consisting of extrasystoles ectopic beats or supraventricular tachycardia ECG evidence of ischemic myocardial changes and increase in heart size have been observed Myocardial infarctions both fatal and non-fatal have occurred but these are not unexpected in untreated patients in the age groups studied It is not known whether any of these infarcts were drug related

Changes in clinical status that may be related to the metabolic action of the drug include the development of insomnia nervousness palpitations tremors loss of weight lid lag sweating flushing hyperthermia hair loss diuresis and menstrual irregularities Gastrointestinal complaints during therapy have included dyspepsia nausea and vomiting constipation diarrhea and decrease in appetite

Other side effects reported to be associated with CHOLOXIN (sodium dextrothyroxine) therapy include the development of headache, changes in libido (increase or decrease) hoarseness tinnitus dizziness peripheral edema malaise tiredness visual disturbances psychic changes paresthesia muscle pain and various bizarre subjective complaints Skin rashes including a few which appeared to be due to iodism and itching have been attributed to dextrothyroxine by some investigators Gallstones have been discovered in occasional dextrothyroxine-treated patients and cholestatic jaundice has occurred in one patient although its relationship to CHOLOXIN (sodium dextrothyroxine) therapy was not established

In several instances the previously existing conditions of the patient appeared to continue or progress during the administration of CHOLOXIN (sodium dextrothyroxine), a worsening of peripheral vascular disease sensorium exophthalmos and retinopathy have been reported

CHOLOXIN (sodium dextrothyroxine) potentiates the effects of anticoagulants such as warfarin or Dicumarol on prothrombin time thus indicating a decrease in the dosage requirements of the anticoagulants On the other hand dosage requirements of antidiabetic drugs have been reported to be increased during dextrothyroxine therapy (see WARNINGS section)

Dosage and Administration
For **adult** euthyroid hypercholesterolemic patients the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is 4 to 8 mg per day The initial daily dose should be 1 to 2 mg to be increased in 1 to 2 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily if that dosage level is indicated to effect the desired lowering of serum cholesterol

When used as partial or complete substitution therapy for levothyroxine in hypothyroid patients with cardiac disease who cannot tolerate other types of thyroid medication the initial daily dose should be 1 mg to be increased in 1 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily preferably the lower dosage The maximum in patients receiving digitalis therapy is 4 mg

For **pediatric** hypercholesterolemic patients the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is approximately 0 1 mg (100 mcg) per kilogram The initial daily dosage should be approximately 0 05 mg (50 mcg) per kilogram to be increased in up to 0 05 mg (50 mcg) per kilogram increments at monthly intervals The recommended maximal dose is 4 mg daily if that dosage is indicated to effect the desired lowering of serum cholesterol

If new signs or symptoms of cardiac disease develop during the treatment period the drug should be withdrawn

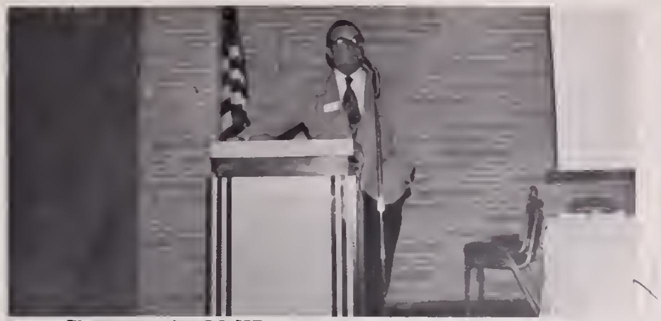
How Supplied
CHOLOXIN (sodium dextrothyroxine) is supplied in prescription packages of scored 1 2 4 and 6 mg tablets

March 1975

FLINT LABORATORIES
DIVISION OF TRAVENOL LABORATORIES, INC.
Deerfield, Illinois 60015

Picture Gallery

Area Meetings on Professional Liability Legislation



Clarence A. McWhorter, M.D., Immediate Past President of the Greater Omaha Medical Society, welcoming group assembled in Omaha.

Robert J. Fitzgibbons, M.D., welcoming group assembled in Omaha, as newly installed President of the Greater Omaha Medical Society.

Doctors Robert J. Fitzgibbons and Clarence A. McWhorter.

Sam L. Watson, M.D., Program Chairman of the Greater Omaha Medical Society, introducing NMA panel.

Harlan L. Papenfuss, M.D., NMA President-Elect, addressing Omaha group.

Blaine Y. Roffman, M.D., Member NMA Subcommittee on Legislation, addressing Omaha group.

Kenneth E. Neff, Executive Secretary of the NMA, addressing Omaha group.

Harlan L. Papenfuss, M.D., NMA President-Elect, with Doctors Roger D. Mason, Robert J. Fitzgibbons and John D. Coe.

James H. Dunlap, M.D., Member of the NMA Policy Committee and Chairman of the NMA Ad-Hoc Steering Committee on Professional Liability, addressing group assembled in Neligh.

Robert F. Shapiro, M.D., Member of the NMA Subcommittee on Legislation and the Ad-Hoc Steering Committee on Professional Liability and Chairman of the NMA Medical Service Committee, addressing group assembled in Neligh.

Down Memory Lane

1. Tachycardias are of so many different types and the pathologic conditions so varied that an exact differentiation of the type and the discovery of the cause is necessary before the treatment can be outlined. Therefore, a complete physical, laboratory and cardiographic examination are always necessary.

2. The general practitioner is not dead but sleeping and needs to be aroused.

3. Gastrointestinal upsets and infections of all sorts are much more common in infants subsisting on cow's milk.

4. Medical meetings have been the means of overcoming many of the little professional jealousies of which most doctors have a plenty.

5. Cheyenne County has been recently organized with a membership of seven.

6. The total paid up membership, Nebraska State Medical Association, for 1925, was 1,209, the highest ever attained.

7. Wisconsin has enacted a law requiring all who engage in the healing art to pass an examination in the sciences fundamental to medicine. All other states should do the same.

8. The Women's Auxiliary of the Nebraska State Medical Association is now assured.

9. Writing a treatise for the annual meeting instead of a practical paper is a great mistake.

10. The Councilor District meetings in Nebraska are rapidly growing in interest and importance as anyone who has observed the trend of times must know.

Nebraska State Medical Journal
February, 1926

WashingtoNotes

National health insurance.

The public interest would be better served if the nation examined the goals of a national health insurance program within the context of the existing health care system and directed its energies toward the perfection of that system, the AMA said today in testimony before a subcommittee of the House Interstate and Foreign Commerce Committee.

"It is unnecessary to gamble on a whole new medical health system in order to meet the health care needs of all Americans," AMA president Max H. Parrott told the Public Health and Environment Subcommittee.

Pointing to the large problems involved in creating a national health insurance program, Dr. Parrott, a Portland, Ore., practitioner, said that public attitudes toward it are changing steadily.

"These problems have been brought into better focus as a result of evidence of the effects of governmentally administered and controlled programs both here and abroad.

"Our national priorities have also shifted because of the effects of the changing economy, and the devastating effects of inflation on all segments of our society.

"Significant changes have taken place in our health system through increased manpower programs, increased facilities construction, increased levels of private health insurance coverage, and a variety of other programs. There is fuller realization and acknowledgment that this country's health system — under attack by many in the course of the NHI debate — is indeed superior to any other in the world," Dr. Parrott said.

Dr. Parrott told the subcommittee members of the medical profession's national health insurance plan (HR 6222) which builds on the structure of the present system of employer-employee group health insurance plans, mandating each employer to provide comprehensive and catastrophic benefit coverage with the employer picking up at least 65 percent of the cost.

Employees, according to the AMA spokesmen, would not be compelled to participate. The self-employed as well as the non-employed could purchase qualified private health insurance, through pools if needed, at a cost not more than 125 percent of the cost of group plans. And, after a certain level of co-insurance is reached, depending upon income, the insurance would cover all remaining costs as a complete protection against catastrophic costs.

Medicare amendments.

The Senate Finance committee also approved with few changes Medicare Amendments adopted earlier by the House. The major one assures that no prevailing Medicare fee for this fiscal year is less than for the previous fiscal year. An unintended effect of the new law tying physicians Medicare reimbursement in with a cost-of-living-type index was to roll back some fees. HEW didn't want to do anything about it, but the House at the urging of the AMA and other groups, agreed to prevent the rollback.

The Senate Committee added language to the House provision to indicate that in calculating the controversial fee index HEW should include to the extent feasible "factors related to any increases in costs of malpractice insurance and that index calculations should be prepared on a regional rather than a national basis."

The other Medicare changes include:

**A one-year extension of authority to grant waivers of nursing staff requirements in rural areas where nurses are in short supply. The House had approved a three-year extension.

**Repeal of a present provision which would make the Federal Employees Health Program rather than Medicare the primary payer of benefits for older or retired U.S. workers. The amendment specifies that Medicare be the primary payer for people eligible for both programs.

Liability.

The Medical Liability Commission has urged Congress not to employ National Health Insurance as a vehicle for forcing a federal solution to the professional liability problem.

Gale Richardson, MD, a member of the Liability Commission, told the House Ways and Means Subcommittee on Health that the causes of the liability crisis "vary in kind and in relative emphasis from state to state. This is one reason that the remedies should be sought within the individual states."

"We are particularly opposed to linking of this problem in any way with national health insurance," said Dr. Richardson.

The Commission is composed of 20 national medical specialty and institutional provider groups, including the AMA, the American Hospital Association and major specialty associations.

Dr. Richardson noted that there have been suggestions that under NHI the government pay the liability premium for physicians who accept assignment. He cited speculation that physicians may be willing to accept government control of medicine in return for having the burden of liability premiums lifted.

"We do not believe that limiting the rights of patients or the rights of any class of citizens is a proper approach to the solution of this problem — nor do we believe that granting by Congress of immunity to physicians or any other group at any time is a proper approach," Dr. Richardson declared.

I Remember

BE SURE IT'S THE RIGHT LEG

Patients and doctors are haunted by stories of operating on the wrong leg, or the wrong part of the body, or on the wrong patient. So we have operating schedules, and patients have their names on charts, and they wear identifying wrist bands, and we check these things very carefully.

And I refused to let operating room personnel say right when they meant correct, because right also means not left. In Mexico, they say derecho when they mean go straight ahead, and they say derecho when they mean turn to the right. Once, a nurse held up an awake patient's leg in the operating room, and she said, "This is your right leg, right?" And the patient answered wearily, "That's my right leg, but the trouble is on the other side."

I once heard of a surgeon who said mistakes happen easily, they were to be sure to show him the right foot, so they did, and he made an incision around the big toe, and someone ran over and told him to stop, it was the other side.

But O.R. schedules are busy things, and something is bound to happen in a third of a century. I have heard of two women coming up, one for thyroidectomy and one for breast biopsy, and they got reversed. And I was about to put a child to sleep, and he was second on the schedule, not first, so the surgeon just did him first, and of course no harm was done; that's as close as I ever came to that kind of trouble.

As we say, nobody's perfect.

—F.C.

The Letter Box

To the Editor:

Genetic and Epidemiologic Studies of Colon Cancer in Southeastern Nebraska

Members of the Department of Preventive Medicine and Public Health, in conjunction with collaborators at the University of Nebraska College of Medicine and the National Cancer Institute, are exceedingly interested in studying genetic and epidemiologic factors which might be contributing to the significant excess occurrence ($p = < .01$) of colon cancer in several counties (Butler, Cass, Colfax, Douglas, Lancaster, Otoe, Saline, Richardson, York and Johnson) in southeastern Nebraska. This excess occurrence (confined to mortality incidence) of colon cancer was uncovered in a study by Dr. Mason and associates of the Epidemiology Branch of the National Cancer Institute.[1]

Whenever an increased frequency of cancer is revealed in a particular ethnic or racial group and/or in a specific geographic area, it merits careful investigation since in certain situations etiology might be determined which could harbor important implications for cancer control.

We believe that the etiology of colon cancer, as evidenced by voluminous studies throughout the world, is exceedingly complex and when fully comprehended will undoubtedly be shown to involve multiple factors including genetic and environmental and/or their interaction.[2] For this reason, we would like to learn as much as we possibly can about the manner in which this disease is distributed in these particular southeastern Nebraska counties, how much of the occurrences are familial, and what environmental factors might be occurring in common with those individuals who have developed this disease. In order for meaningful results to be obtained, it will be necessary to evaluate a control population from this same area. This control sample will have to be carefully matched for as many factors as possible with the experimental group (patients affected with colon cancer). Factors which we think require particular attention include genetic, dietary, ethnic, cultural, socio-economic backgrounds, habit patterns, occupation and, of course, common exposures such as any chemical aberrations in the water and soil. Due to the complexity and magnitude of this problem, and because practicing physicians in these counties have undoubtedly pondered this problem of excess colon cancer, we would deeply appreciate hearing from doctors relevant to their own ideas as to what etiologic factors might be contributing to colon cancer excess in southeastern Nebraska. We also will deeply appreciate the assistance of physicians from this area of the state so that our formal investigations can achieve maximum success.

All information which we obtain on patients will, of course, be held in the most strict medical confidence and will be used solely for research purposes. Names of patients or physicians will never be disclosed; and indeed, all of the data in this investigation will be coded for computerization purposes. Results, once they are obtained and interpreted, will be made available to all of the physicians of Nebraska.

Henry T. Lynch, M.D.
Professor and Chairman
Department of Preventive Medicine
and Public Health
Creighton University

References

1. Mason TJ, McKay FW, Hoover R, Blot WJ, and Fraumeni Jr, JF: Atlas of Cancer Mortality for U.S. Counties: 1950-1969., U.S. Department of Health, Education, and Welfare, Publication No. (NIH) 75-780, 1975.

2. Lynch HT: Cancer Genetics, Charles C. Thomas Company, Springfield, 1976, pp. 639.

Dear Dr. Cole:

Please list the following continuing education courses in the next issue of your medical journal.

Coronary Care and the Practicing Physician, February 11-13, 1976, Cardiac Center, Creighton Memorial St. Joseph Hospital, 10th & Martha Streets, Omaha, Nebraska.

Critical Care Medicine, March 3-7, 1976, Surgery Conference Room, Second Floor Faculty Building, 10th & Castelar Streets, Omaha, Nebraska.

Selected Topics in Internal Medicine, March 11-13, 1976, Criss Unit 3, Creighton University Campus, 2500 California Street, Omaha, Nebraska.

Ob-Gyn Postgraduate Course (cosponsored with University of Nebraska Medical Center) March 18-19, 1976, University of Nebraska Medical Center, 42nd & Dewey Streets, Omaha, Nebraska.

Interested parties may obtain further information on these courses from:

Medical Dean's Office
Continuing Education Coordinator
Creighton University School of Medicine
2500 California
Omaha, Nebraska 68178

Thank you.

Sincerely,
Hattie DeLapp
Coordinator
Continuing Education

Dear Dr. Cole:

Would you please publish in the Nebraska Medical Journal a seminar being cosponsored by Childrens Memorial Hospital and the Creighton University School of Medicine and the University of Nebraska School of Medicine. This seminar is entitled "The 16th Annual Pediatrics Post-Graduate Seminar," and it is to be held on May 7 and 8, 1976, at Childrens Memorial Hospital. The speakers for the seminar will be Dr. Sidney Blumenthal, Professor of Cardiology, Director of the Division of Heart and Vascular Diseases, National Heart and Lung Institute, Bethesda, Maryland; Dr. Lowell A. Glasgow, Professor and Chairman of Pediatrics, University of Utah Medical Center, Salt

Lake City, Utah; and Dr. Hyman Chai, Director, Division of Medicine, Childrens Asthma Research Institute and Hospital-Carih, Denver, Colorado. These speakers will be speaking on Immunology, Hypertension, and Infectious Diseases. The fee is $65.

Persons interested in this seminar should contact Dr. James I. Wax, Chairman, Post-Graduate Seminar, Childrens Memorial Hospital, 44th & Dewey Avenue, Omaha, Nebraska 68105.

Please contact me if you should need any further information.

Thank you.

Sincerely,
James I. Wax, M.D.
Chairman, Post-Graduate Seminar

Coming Meetings

CRIPPLED CHILDREN'S CLINICS —
February 28 — Kearney, Elks Lodge
March 6 — Sidney, Elks Lodge

NEBRASKA SOCIETY OF CLINICAL HYPNOSIS: a two-day seminar in medical and dental hypnosis February 14 and 15, 1976 at the Ramada Inn (Airport) in Omaha, Nebraska.

KOCH CENTENNIAL SYMPOSIUM — A two day Medical Horizons Symposium on "Challenges of Ambulatory Care of Tuberculosis" is scheduled February 20-21, 1976 at the Hilton Hotel, Baltimore, Maryland. Speakers include: Wallace Fox, Director of the British Medical Research Council, Tuberculosis and Chest Diseases Unit, London and D. A. Mitchison, Professor of Bacteriology and Director of the Department of Bacteriology, Royal Postgraduate Medical School, London. Apply: David Glasser, M.D., Baltimore City Health Department, Room C-231, Baltimore, Maryland 21202, (301) 396-4436.

SIXTH ANNUAL ASPEN RADIOLOGY CONFERENCE — The sixth annual Aspen Radiology Conference will be held March 1st-5th, 1976 at the Aspen Institute for Humanistic Studies, Aspen, Colorado. The Conference is designed for physicians and scientists interested in diagnostic radiology, nuclear medicine and radiation therapy and will explore the impact of clinical and technological advances on radiologic practice. The topics for discussions will include advances in cardiovascular, gastrointestinal, bone, and neuroradiology, involving a triradiological approach. Each morning will survey the advances in a single radiology subdivision as a refresher course with independent parallel diagnostic, nuclear medicine, and therapy sessions. Instructive cases, illustrating these topics and previewed by the audience, will be presented for open discussion in the afternoons. Further information may be obtained from Emanuel Salzman, M.D., Conference Chairman, Division of Radiology, Beth Israel Hospital, Denver, Colorado 80204.

COURSE IN NEUROTOLOGY — March 22 through 25, 1976. The Department of Otolaryngology of the Abraham Lincoln School of Medicine and the University of Illinois Hospital Eye and Ear Infirmary, University of Illinois at the Medical Center, will conduct a continuing education course in Neurotology, March 22 through 25, 1976. The four day intensive course will offer a didactic and practical review of clinical neurotology under the direction of Nicholas Torok, M.D. It will be held at the Eye and Ear Infirmary and will include basic vestibular physiology and pathophysiology, commonly used testing methods applied in functional examination of the vestibular organ. Various forms of caloric testing procedures will be demonstrated using nystagmography, reading and evaluation of the test results, particularly the nystagmogram, and correlation with audiometric and neurologic findings, final neurotological diagnosis, management and treatment. Patients will be tested by participants and the history, symptoms and test results will be discussed in informal conferences. Enrollment is limited to fifteen. For application forms write to the Department of Otolaryngology, 1855 West Taylor Street, Chicago.

NEBRASKA MEDICAL ASSOCIATION — Annual Session, May 2-5, 1976, Holiday Inn, Kearney, Nebraska.

AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 26 - July 1, 1976, Dallas, Texas.

NEBRASKA MEDICAL ASSOCIATION FALL SESSION — September 30 — October 1 & 2, 1976, Lincoln Hilton Hotel, Lincoln, Nebraska.

AMERICAN MEDICAL ASSOCIATION — 30th Clinical Convention, December 4-8, 1976, Philadelphia, Pennsylvania.

LIBRARY
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OF MEDICINE

ADVERTISERS' INDEX

A

Accent Service Company, Inc. 25
American Cancer Society, Nebraska Division, Inc. 31
American Medical Association 70A

B

Burroughs Wellcome Co. 7

C

Cooper Laboratories, Inc. 8, 9

D

Donley Medical Supply Co. 25
Dow Pharmaceuticals 27, 28, 29, 30

F

Flint Laboratories 23, 24, 70B, 70C, 70D

L

Eli Lilly and Company 32

M

Mallinckrodt, Inc. 5
Medical Protective Co. (The) 21
Merck Sharp & Dohme 62B, 62C, 62D

N

Norfolk Printing Company, Inc. 21

P

Pharmaceutical Manufacturers Association 14, 15

R

A. H. Robins Company 11, 12, 13
Roche Laboratories 2, 3, 18, 19, 20, 35, 36
Roerig & Co. 62A

S

Smith Kline & French Laboratories 17

U

U. S. Army Corps of Engineers, Omaha District 6

Physicians' Classified

FAMILY PRACTITIONER WISHES ASSOCIATE who is Board-certified or Board-eligible in family practice to join family practice. Located in Waterloo, Iowa, a northeast Iowa community of 75,000. All records dictated on the Problem Orientated Medical Records System. Contact: Ronald R. Roth, M.D., 611 Black's Building, Waterloo, Iowa 50703.

EMERGENCY DEPARTMENT STAFF PHYSICIAN: 455-bed hospital in suburban Omaha. One of five M.D.'s, New 14,000 sq. ft. department approved with construction to begin in Spring. Visits per month: 2500-3000. Hospital-based specialists: neonatology, pulmonary disease, cardiology, anesthesia, pathology and radiology. Remuneration: $40-60,000 plus good fringes, depending upon experience. Experience in E.D. desired. J. R. McCaslin, M.D., Director, Archbishop Bergan Mercy Hospital, Omaha, Nebraska 68124, (402) 398-6031.

CLINIC AVAILABLE — General practice in furnished clinic. County seat town, SW Nebraska. Three nursing homes in town, good territory. Equipped office available for dentist. Write Box 8, Beaver City, Nebraska 68926.

PSYCHIATRIC RESIDENCY: Vacancies for positions for those who have a regular Iowa License or can obtain one by reciprocity or via the FLEX. Prepare for career in private practice, community clinics or hospital based psychiatry; emphasis on close supervision of intensive individual and group psychotherapy, OPD, Children's Unit, Adolescent Unit, Neurology affiliation with University of Iowa. The stipends are: 1st Year, $20,280; 2nd Year, $21,294; 3rd Year, $22,360. Intensity and diversity of training program appreciated best by personal visit. Superintendent, Mental Health Institute, Cherokee, Iowa 51012, Equal Opportunity Employer. Call Collect 712-225-2594.

10-day Bactrim therapy outperforms 10-day ampicillin therapy.

In a multicenter, double-blind study of patients with chronic or frequently recurrent urinary tract infection, Bactrim 10-day therapy outperformed ampicillin 10-day therapy by 27.2%, when comparing patients who maintained clear cultures for eight weeks. Criterion for "clear culture" was 1000 or fewer organisms/ml of urine.

While adverse reactions were mild (*e.g.*, nausea, rash), more serious reactions can occur with these drugs. See manufacturers' product information for complete listing.

Note: Bactrim single strength tablets were used in these clinical trials. However, studies have established the bioequivalency of Bactrim DS with the single strength tablets.

Bactrim™ DS

(160 mg trimethoprim and 800 mg sulfamethoxazole)

double strength tablets
Just 1 tablet B.I.D.

Bactrim™

(80 mg trimethoprim and 400 mg sulfamethoxazole)

2 tablets B.I.D.

For chronic or frequently recurrent cystitis and pyelonephritis due to susceptible organisms.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Chronic urinary tract infections evidenced by persistent bacteriuria (symptomatic or asymptomatic), frequently recurrent infections (relapse or reinfection), or infections associated with urinary tract complications, such as obstruction. Primarily for cystitis, pyelonephritis or pyelitis due to susceptible strains of *E. coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris* and *Proteus morganii.*

NOTE: The increasing frequency of resistant organisms limits the usefulness of antibacterials, especially in these urinary tract infections.

The recommended quantitative disc susceptibility method (*Federal Register,* 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. **Data are insufficient to recommend use in infants and children under 12.**

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12. Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) every 24 hours
Below 15	Use not recommended

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole — bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10.

Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole; fruit-licorice flavored — bottles of 16 oz (1 pint).

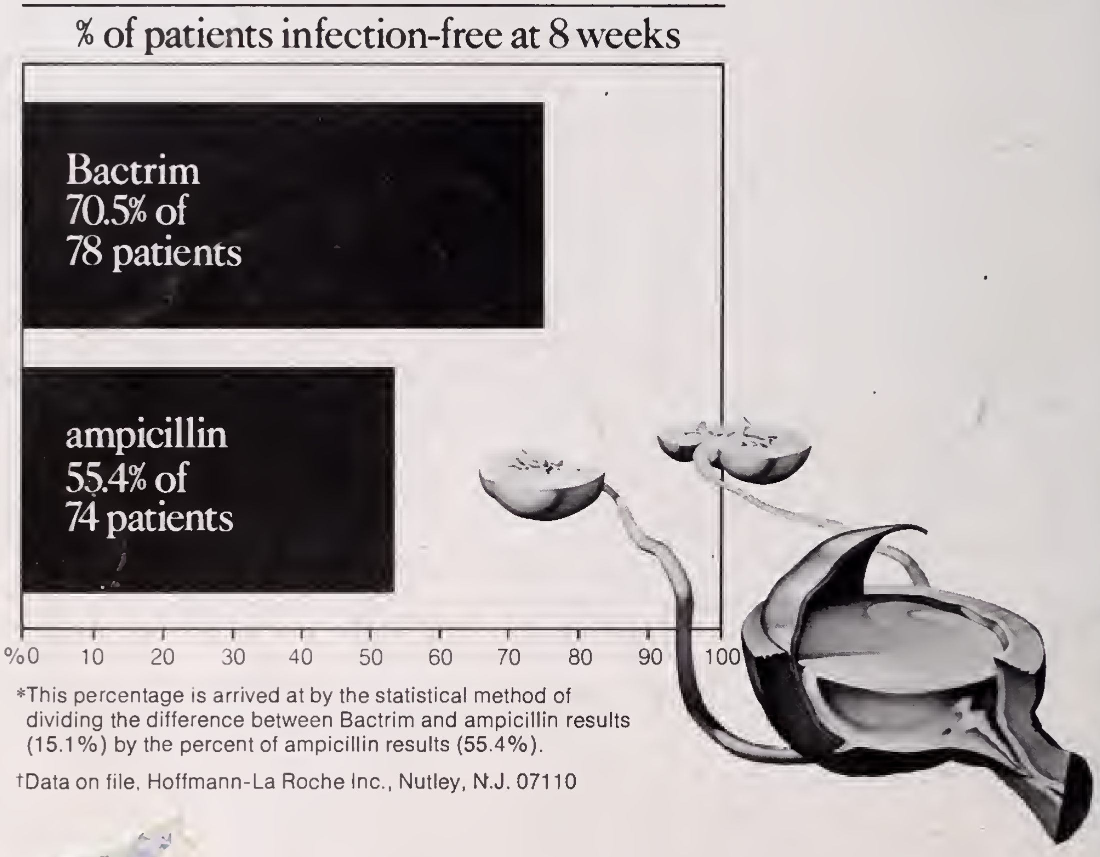
ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

In a multicenter study of patients with chronic or frequently recurrent urinary tract infections

Bactrim T.M. was 27.2%* more effective than ampicillin in keeping patients infection-free for 8 weeks.†

% of patients infection-free at 8 weeks



*This percentage is arrived at by the statistical method of dividing the difference between Bactrim and ampicillin results (15.1%) by the percent of ampicillin results (55.4%).

†Data on file, Hoffmann-La Roche Inc., Nutley, N.J. 07110

Bactrim T.M. DS

(160 mg trimethoprim and 800 mg sulfamethoxazole)

double strength tablets
Just 1 tablet B.I.D.

Bactrim T.M.

(80 mg trimethoprim and 400 mg sulfamethoxazole)

2 tablets B.I.D.

Please see summary of product information on preceding page.

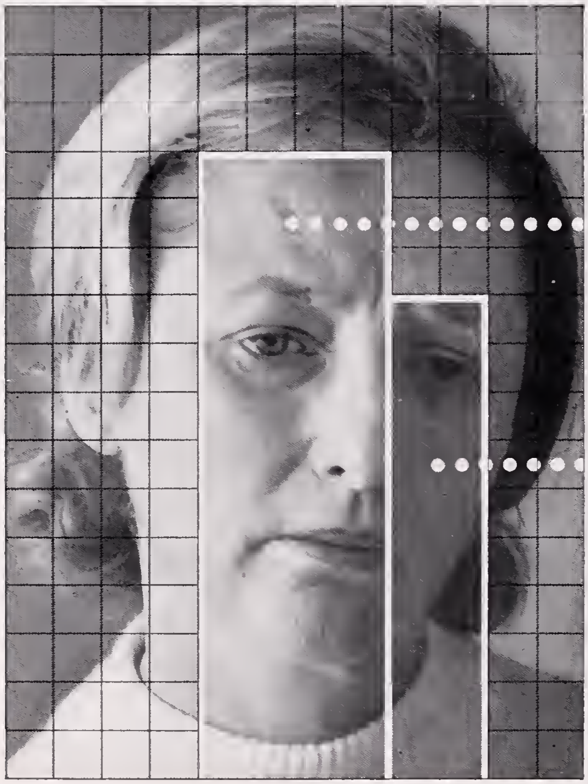
ROCHE

BALCONY

The Nebraska Medical Journal

March, 1976

Both often



Predominant psychoneurotic anxiety

Associated depressive symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful

respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as the excessive anxiety is relieved, the depressive symptoms associated with it are also often relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.

Valium®
(diazepam) ⓘⓥ
2-mg, 5-mg, 10-mg scored tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

ROCHE
Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

The Nebraska Medical Journal

EDITOR-FRANK COLE, M.D., 1845 "F" St., Apt. 1, Lincoln 68508 MARCH 1976 VOL. 61, NO. 3
PHONE 471-5016

EDITORIALS —

Will You Die If You Think You Will? . . . 77
Why Babies Get Born 77
The Usual Childhood Diseases 77
Don't Call It The Emergency Room . . . 78
On Patients, Immortality, and Transplants 79

ORIGINAL ARTICLES —

Factor XIII Deficiency: Report of a Case Complicated by Splenic Rupture 80
Richard Bregman, M.D.
Richard B. Davis, M.D.
Gilbert C. Schreiner, M.D.
Peyton T. Pratt, M.D.

Methotrexate Induced Colitis 84
Russell A. Novak, M.D.
Anne Kessinger, M.D.

Nutrition and Physical Fitness: Food Fads and Quackery, Part I 88
Ralph A. Nelson, M.D., Ph.D.

My Fifty Years 91
H. S. Tennant, M.D.

The MECO Experience 92
Randall L. Linton
Dennis D. Hickstein

FEATURES —

President's Page 94
The Auxiliary 95
Books 96

BETWEEN CASES 97

NEBRASKA —

Our Medical Schools 98
State Organizations 16A
Welcome New Members 99

DOWN MEMORY LANE 99

THE OTHER STATES —

WashingtoNotes 100
National Organizations 14A

I REMEMBER —

On Epiglottitis 101

AROUND THE WORLD —

The Letter Box 102
Coming Meetings 102

Address all correspondence relating to subscriptions, advertising or address changes to Mr. Ken Neff, Business Manager, 1902 First National Bank Building, Lincoln, Nebraska 68508 Phone: [402] 432-7585.

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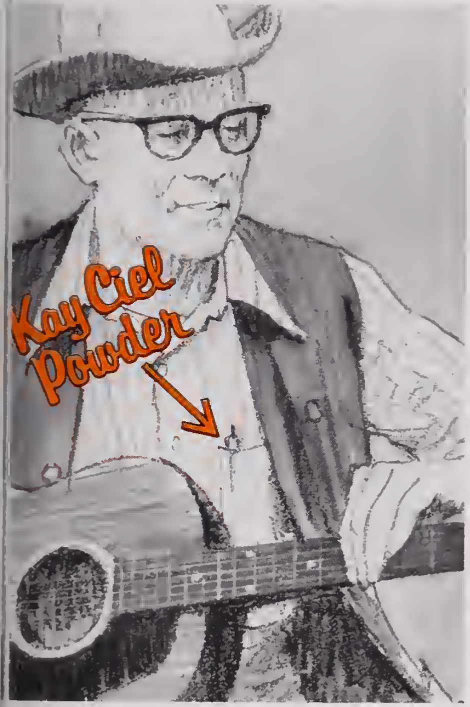

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2:30 — 5:15 p.m., Tuesday, May 4

Featuring

Gordon H. Deckert, M.D.

Doctor Deckert is Professor and Chairman, Department of Psychiatry and Behavioral Sciences at the University of Oklahoma Health Sciences Center in Oklahoma City.

2:30 p.m.

"The Patient in the Practitioner's Office"

4 p.m.

"Patience in the Practitioner's Family"

ADVICE TO AUTHORS

The Editor of this Journal assumes no responsibility for opinions and claims expressed in the articles published herein.

Manuscripts to be presented for publication in the JOURNAL should be typewritten, double-spaced, on one side only of firm (not onion skin or flimsy), standard letter size (8½ by 11 in.) white paper. Wide margins (at least 1¼ in. on left) should be left free of typing. On the first or title-page should be shown the title of the article, the name (or names) of the author, his degree and other significant credits. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Illustrations should be numbered and their locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be black (India ink) on pure white. Photographs should be on glossy paper and a minimum of about 5 by 7 in. in size. A legend should be provided for each illustration and, preferably, attached to it.

Manuscripts (original, not a carbon) should be sent directly to the Editor at the Journal's address.

Letters to the Editor submitted for publication should be prepared as above, and must carry the notation: To be Published.

Reprints should be ordered from the printer, Norfolk Printing Co., Inc., P. O. Box 278, Norfolk, Nebr. 68701.

Our Medical Schools . . .

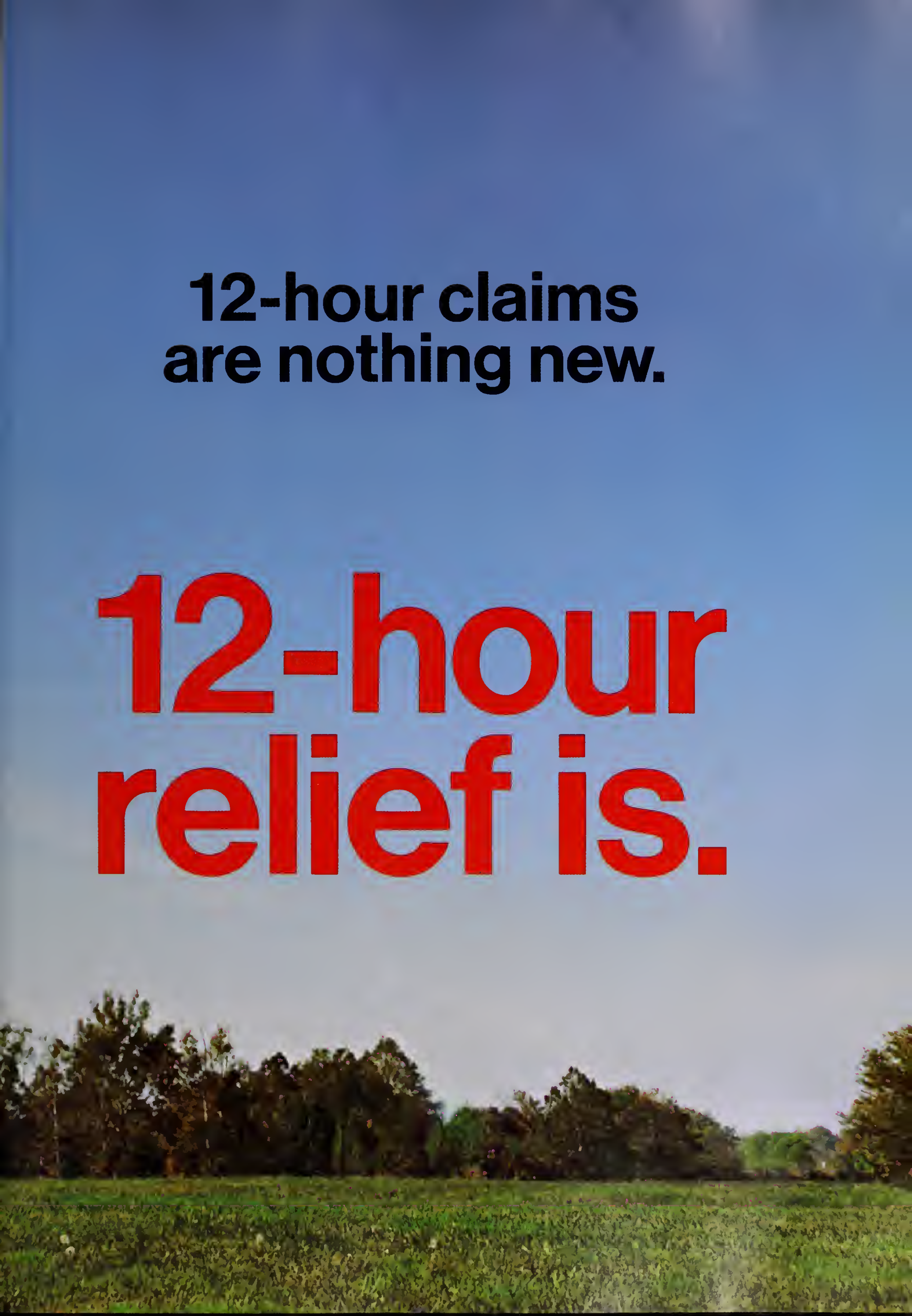
Dr. Pellegrino contributes to NCME.

An associate professor and director of pediatric neurology at the University of Nebraska Medical Center participated in a television program produced by the Network for Continuing Medical Education.

Dr. Richard J. Pellegrino's program, "Pediatric Progress: Subdural Fluid Collections" was distributed to hospitals and medical centers throughout the United States.

The Network for Continuing Medical Education produces 69 educational television programs annually for nationwide distribution via videocassettes. Predominantly clinical in nature, the bi-weekly programs feature some of the nation's leading physicians and help medical professionals keep abreast of the latest developments in their fields.

After the program has been distributed to all subscribing institutions, it will become part of the network's permanent videocassette library.


12-hour claims are nothing new.
12-hour relief is.

NEW
Novafed® A
Capsules

Each capsule contains pseudoephedrine hydrochloride 120 mg. and chlorpheniramine maleate 8 mg.

Controlled-Release Decongestant Plus Antihistamine

It goes the distance.

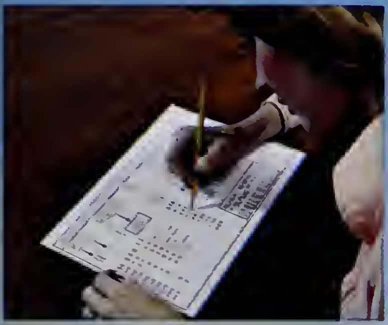
Clinical studies confirm full 12-hour effectiveness.

For years, patients have heard of drugs providing long-lasting relief. But after six or eight hours, they often run out of relief. And it's too soon to take the next dose.

Now, with Novafed A, Dow introduces a prescription capsule with 12-hour effectiveness in relieving allergy and hay fever symptoms. Placebo-controlled clinical studies show that the high level of decongestant in Novafed A provides relief for as long as 12 hours. At the same time, its antihistamine relieves the patient's itchy eyes and runny nose *without* the excessive dryness of anticholinergic agents.

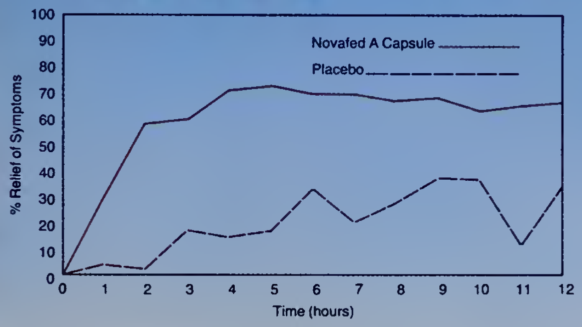
Prompt onset of effect is followed by full 12-hour relief.

(Please refer to the following page for bioavailability studies and prescribing information.)



Patients with severe pollen allergies were tested during hay fever season in a countryside environment and asked to rate severity of five different symptoms on a scale of 1 to 4.

Clinical Study: Degree of Relief from Itchy Eyes and Nose and Throat, Watery Eyes, Runny Nose*



*Unpublished data, Medical Department Files, Dow Pharmaceuticals, The Dow Chemical Company, Indianapolis, Indiana.

DOW Specialists in Cough and Cold Care

NEW

Novafed® A Capsules

Each capsule contains pseudoephedrine hydrochloride 120 mg. and chlorpheniramine maleate 8 mg.

Controlled-Release Decongestant Plus Antihistamine

It goes the distance.

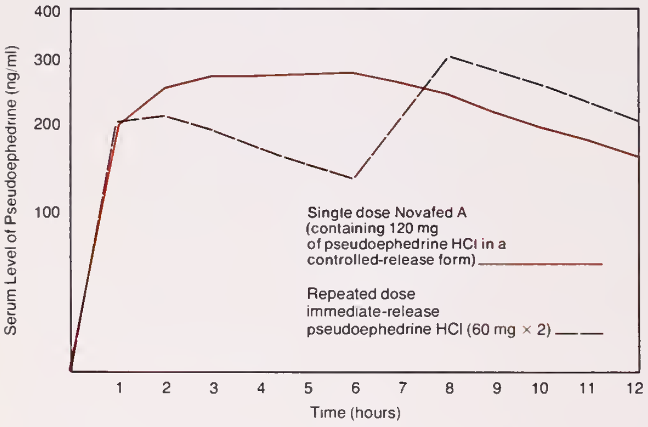
Prompt onset and sustained serum levels over 12 hours.

A bioavailability study confirmed that the sustained 12-hour action of Novafed A was comparable to that of immediate-release medication taken at 6-hour intervals.

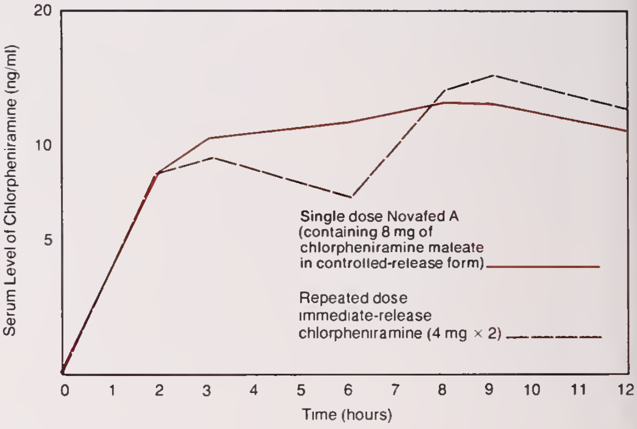
The chart at the left shows the serum levels of pseudoephedrine. Initial serum levels following one Novafed A Capsule were comparable to those following a single dose of 60 mg. pseudoephedrine hydrochloride in an immediate-release form. Serum levels of pseudoephedrine over a 12-hour period following a single dose of Novafed A were also comparable to those obtained by an immediate-release form taken every 6 hours.

The chart at the right shows the serum levels of chlorpheniramine. Initial serum levels following one Novafed A Capsule were comparable to those following a single dose of 4 mg. chlorpheniramine maleate in an immediate-release form. Serum levels of chlorpheniramine over a 12-hour period following a single dose of Novafed A were also comparable to those obtained by an immediate-release form taken every 6 hours.

Comparison of Mean Serum Levels of Pseudoephedrine Following Novafed A and an Immediate-Release Reference Formulation*



Comparison of Mean Serum Levels of Chlorpheniramine Following Novafed A and an Immediate-Release Reference Formulation*



*Unpublished data, Medical Department Files, Dow Pharmaceuticals, The Dow Chemical Company, Indianapolis, Indiana.

DESCRIPTION: Each NOVAFED A capsule contains 120 mg. of pseudoephedrine hydrochloride and 8 mg. of chlorpheniramine maleate. The specially formulated pellets in each capsule are designed to provide continuous therapeutic effect for about 12 hours. Nearly one-half of the active ingredients is released soon after administration and the remainder is released slowly over the remaining time period.

ACTIONS: NOVAFED A combines the action of a nasal decongestant, pseudoephedrine hydrochloride, and an antihistamine, chlorpheniramine maleate. These ingredients are combined to provide prompt and sustained nasal and upper respiratory decongestant and antihistaminic action.

INDICATIONS: NOVAFED A is indicated for the relief of nasal congestion and eustachian tube congestion associated with the common cold, sinusitis and acute upper respiratory infections. It is also indicated for perennial and seasonal allergic rhinitis, vasomotor rhinitis, allergic conjunctivitis due to inhalant allergens and foods and for mild, uncomplicated allergic skin manifestations of urticaria and angioedema. Decongestants in combination with antihistamines have been used for many years to relieve eustachian tube congestion associated with acute eustachian salpingitis, aerotitis media, acute otitis media and serous otitis media. NOVAFED A may be given concurrently, when indicated, with analgesics and antibiotics.

CONTRAINDICATIONS: Symphathomimetic amines are contraindicated in patients with severe hypertension, severe coronary artery disease, and in patients on MAO inhibitor therapy. Antihistamines are contraindicated in patients with narrow-angle glaucoma, urinary retention, peptic ulcer, during an asthmatic attack, and in patients receiving MAO inhibitors.

Children under 12: NOVAFED A controlled-release capsules should not be used in children less than 12 years of age.

Nursing Mothers: Pseudoephedrine is contraindicated in nursing mothers because of the higher than usual risk for infants from sympathomimetic amines.

Hypersensitivity: This drug is contraindicated in patients with hypersensitivity or idiosyncrasy to sympathomimetic amines or antihistamines. Patient idiosyncrasy to adrenergic agents may be manifested by insomnia, dizziness, weakness, tremor or arrhythmias.

WARNINGS: Sympathomimetic amines should be used judiciously and sparingly in patients with hypertension, diabetes mellitus, ischemic heart disease, increased intraocular pressure, hyperthyroidism, or prostatic hypertrophy. Sympathomimetics may produce central nervous system stimulation and convulsions or cardiovascular collapse with accompanying hypotension.

Antihistamines may impair mental and physical abilities required for the performance of potentially hazardous tasks, such as driving a vehicle or operating machinery, and mental alertness in children. Chlorpheniramine maleate has an atropine-like action and should be used with caution in patients with increased intraocular pressure, hyperthyroidism, cardiovascular disease, hypertension or in patients with a history of bronchial asthma.

Do not exceed recommended dosage.

Use in Pregnancy: The safety of pseudoephedrine for use during pregnancy has not been established.

Use In Elderly: The elderly (60 years and older) are more likely to have adverse reaction to sympathomimetics. Overdosage of sympathomimetics in this age group may cause hallucinations, convulsions, CNS depression, and death. Therefore, safe use of a short-acting sympathomimetic should be demonstrated in the individual elderly patient before considering the use of a sustained-action formulation.

PRECAUTIONS: This drug should be used with caution in patients with diabetes, hypertension, cardiovascular disease and hyperreactivity to ephedrine. The antihistaminic may cause drowsiness and ambulatory patients who operate machinery or motor vehicles should be cautioned accordingly.

ADVERSE REACTIONS: Hyperreactive individuals may display ephedrine-like reactions such as tachycardia, palpitations, headache, dizziness, or nausea. Patients sensitive to antihistamines may experience mild sedation.

Sympathomimetic drugs have been associated with certain untoward reactions including fear, anxiety, tenseness, restlessness, tremor, weakness, pallor, respiratory difficulty, dysuria, insomnia, hallucinations, convulsions, CNS depression, arrhythmias, and cardiovascular collapse with hypotension.

Possible side effects of antihistamines are drowsiness, restlessness, dizziness, weakness, dry mouth, anorexia, nausea, headache and nervousness, blurring of vision, heartburn, dysuria and very rarely, dermatitis.

DRUG INTERACTIONS: MAO inhibitors and beta adrenergic blockers increase the effect of sympathomimetics. Sympathomimetics may reduce the antihypertensive effects of methyldopa, mecamylamine, reserpine and veratrum alkaloids. Concomitant use of antihistamines with alcohol, tricyclic antidepressants, barbiturates and other central nervous system depressants may have an additive effect.

DOSAGE AND ADMINISTRATION: One capsule every 12 hours. Do not give to children under 12 years of age.

CAUTION: Federal law prohibits dispensing without prescription.

HOW SUPPLIED: NOVAFED A is supplied in red and orange colored hard gelatin capsules, monogrammed with the Dow diamond followed by the number 109, in bottles of 100.

DOW

DOW PHARMACEUTICALS
The Dow Chemical Company
Indianapolis, IN 46268

Specialists in cough and cold care

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1976 ANNUAL SESSION

OF THE

NEBRASKA MEDICAL ASSOCIATION

SUNDAY — MAY 2 BOARD OF COUNCILORS HOUSE OF DELEGATES MEDICINE AND RELIGION DINNER Rev. Al Anderson	**MONDAY — MAY 3** HOUSE OF DELEGATES SPORTSMAN'S DAY
TUESDAY — MAY 4 OPENING CEREMONIES SYMPOSIUM ON PEDIATRIC PROBLEMS (Kid Stuff) ATHLETIC — MEDICINE LUNCHEON SYMPOSIUM ON PSYCHIATRY FUN NIGHT Holiday Inn of Kearney Presidential Reception The Al Fike Show	**WEDNESDAY — MAY 5** SYMPOSIUM ON "WHAT'S NEW IN MEDICINE" ANNUAL DISTINGUISHED LUNCHEON — INSTALLATION — PRESIDENTIAL ADDRESS — RECOGNITION OF FIFTY-YEAR PRACTITIONERS — SPEAKER

MAY 2 thru MAY 5

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Testing in Humans: Who, Where & When.

the weight of ethical opinion:

Few would disagree that the effectiveness and safety of any therapeutic agent or device must be determined through clinical research.

But now the *practice* of clinical research is under appraisal by Congress, the press and the general public. Who shall administer it? On whom are the products to be tested? Under what circumstances? And how shall results be evaluated and utilized?

The Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions which it submitted on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, as its official policy recommendations. Here are the essentials of PMA's current thinking in this vital area.

1. PMA supports the mandate and mission of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research and offers to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its service to the Commission.

2. PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact upon it of existing laws, regulations and procedures.

3. When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on drug and device innovation.

4. PMA proposes that an appropriately qualified medical organization be encouraged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent clinical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct non-therapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.

P·M·A

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"To put it in medical jargon, what you have here is similar to a blocked gall bladder duct."

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Emergency services.

The Administration has opposed a specific extension of the program of federal aid to states and localities to demonstrate ways of improving emergency medical services.

Testifying before the Senate Health Subcommittee, Theodore Cooper, M.D., Assistant Secretary for Health, said such assistance could be handled in the future under the Administration's proposed block grant plan to consolidate 16 existing categorical programs.

The so-called "Financial Assistance For Health Care Act" will give states and localities "the discretion to continue funding according to individual state priorities," Dr. Cooper testified.

Legislation before the Senate to extend the program at costs ranging from $270 million to $416 million are "far in excess" of what is required to demonstrate effective systems for emergency medical services, said Dr. Cooper.

Utilization review.

Congress has buttressed the medical and hospital professions' case against the Utilization Review Regulations originally promulgated by HEW.

The lawmakers approved with no dissent a provision making it clear that Congress never intended to require 100 percent review of all Medicare-Medicaid hospital admissions, a key part of the controversial UR Regulations issued by HEW.

The AMA has challenged successfully the UR Regulations in court. The HEW Department is slated soon to issue revised regulations after court-ordered negotiations with the AMA.

One of the major arguments against the Regulations was that HEW had reached beyond Congress' intent in carrying out the review program. Congress' vote on the amendment to the Medicare-Medicaid laws appeared to back up the protests of the AMA and the American Hospital Association.

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Health report.

Americans' health continues to improve. Lower infant death rates and longer life expectancy are shown in a State of the Union's Health Report for 1975 submitted to Congress and President Ford by the HEW Department.

Rates of infant deaths in the U.S. declined from 29.2 per 1,000 live births in 1950 to an estimated 16.5 in 1974. Over the same period, life expectancy at birth increased by nearly four years. The death rate for heart disease is decreasing.

"The report shows considerable achievement as well as need for improvement," Theodore Cooper, M.D., Assistant Secretary for Health, said. "As a people we are receiving more medical care now than 10 years ago. We have made considerable progress in lowering the income barrier to care. Most of us describe our health as good or excellent."

The report, Health, United States, 1975, includes data on health care costs and financing, health resources and utilization, and health status. The death rate for heart disease among persons aged 55-64 dropped almost 15 percent over the past six years. In the same age group, the death rate from cancer rose almost four per cent. Among younger people, accidents and homicide are major causes of death.

HMO.

Legislation to amend the Health Maintenance Organization (HMO) program "would effectively gut the HMO concept and subvert the original intent of the program," the AMA has told the Senate.

Edgar T. Beddingfield, M.D., Vice-Chairman of the AMA's Council on Legislation, said the House passed HMO amendments "remove important comprehensive services and eliminate characteristics which distinguish the HMO from other prepaid group practices."

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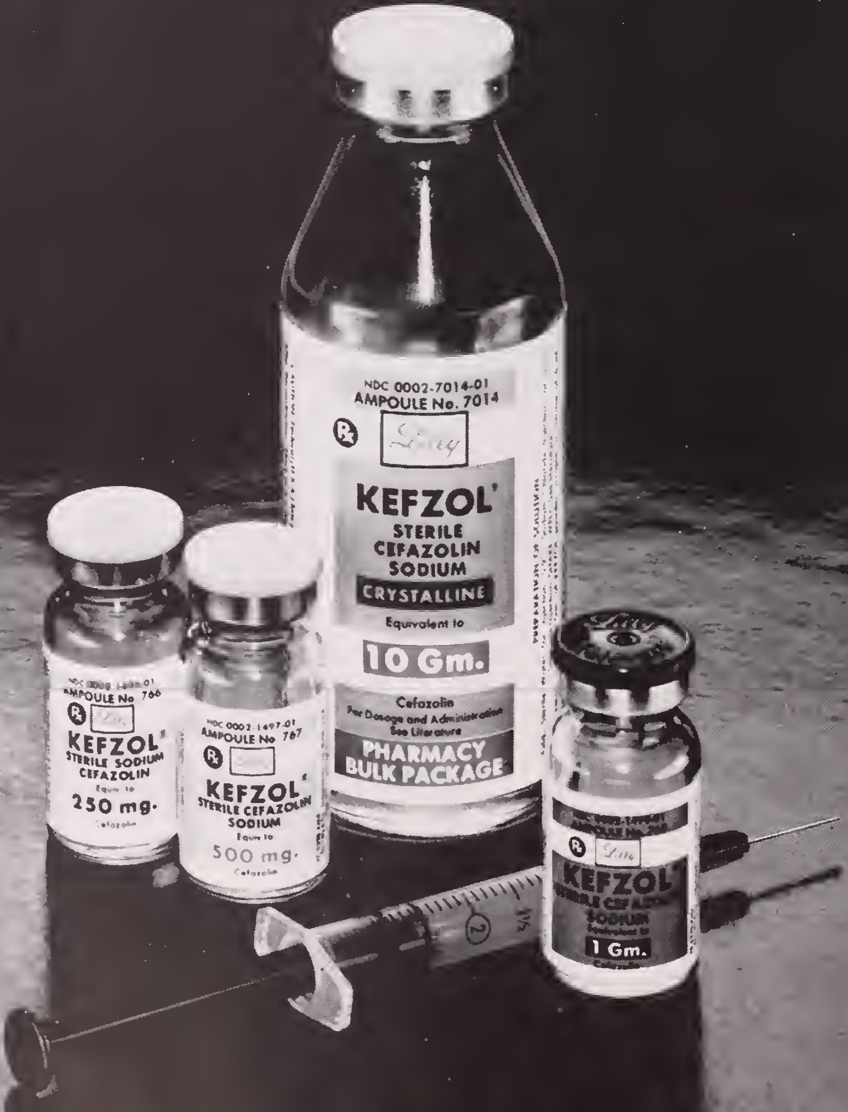

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THE NEBRASKA MEDICAL JOURNAL

WILL YOU DIE IF YOU THINK YOU WILL?

We are afraid to anesthetize and to operate on someone who says I am going to die. I wonder how often this is justified. It would be necessary to count all the people who said it and those who did not, and see how many of each died, and I do not know of such a series.

I have seen this referred to in so many books, and always as though it is so, that if they say they will die, they will, or they are more likely to die than the others. But I do not know if you can die of fright. We are assured that there is the necessary nervous pathway, but this is theorizing, and what we want are statistics.

The advice in the books cautioning us to avoid these cases is too much like the wonderful words in the far-from-wonderful books, telling us, in some instances, that we must be careful in these cases. This means that we may be careless in all the others, I suppose.

Sometimes they say, give plenty of oxygen in these cases; which means you don't have to, in the others.

We are all afraid to go to the operating room, and we are more afraid when the trip is life-threatening. This means that the fear is greater when the risk is more, so that if there are more deaths, we cannot put them down to fright.

If we are going to avoid these cases, and we really cannot do this, or if we are about to deny responsibility where death occurs, it is time to do this study. It would be so easy.

—F.C.

WHY BABIES GET BORN

The fetus is, I believe, a homograft. It is rejected, but at term, and it is only a question of time and dose, as is true of rejection in other instances. There are antigens, and one woman may miscarry oftener than another, and she may do so more commonly with one male than with another, I suppose.

I suggest that the onset of labor is merely rejection, and that spontaneous abortion and miscarriage are forms of rejection. If this is indeed found to be so, may we not open the door to the prevention and the treatment of spontaneous abortion and miscarriage?

It is interesting to consider labor as rejection of a homograft. If it leads nowhere else, it serves completely to explain the infant's cry when it is born; it has been rejected.

We have long wondered what makes women go into labor, and rejection seems a likely answer. If this is so, we may be able to induce labor easily and at will, so that babies will not be born at night, and to delay its onset when advisable.

Immunosuppresive therapy may come to play a leading role in habitual abortion and in the prevention of premature labor.

The fetus is indeed rejected in pregnancy, and I put forth the theory that labor is rejection, and that expulsion of the fetus is rejection of the fetus as a homograft.

The fetus is often rejected early in pregnancy, but this is neither common nor desirable. Still, it does happen, and supports my thesis that labor is rejection.

—F.C.

THE USUAL CHILDHOOD DISEASES

UCD is one of the most commonly used of medical abbreviations, at least it is often used by pediatricians and by history takers. Common childhood diseases are usually viral, I think, and not being a pediatrician, measles, mumps, and chickenpox come to mind.

But why do we have *usual* childhood diseases, and do we have them any more, now that there are vaccines? Even so, it is something to think about, that until very recently, with all our progress, they were so common that they were accepted as being normal. Why children are susceptible to these illnesses is something only the pediatrician knows, but why it was routine for children to come down with all these not entirely benign ailments I cannot understand, since we are so full of knowledge, what with putting men on the moon.

Maybe they don't get rubiola and rubella and whooping cough like they used to, but you still read this in histories and you wonder at the phrase, the *usual* childhood diseases. I cannot get it out of my thoughts, that you were expected to get measles and mumps and chickenpox and whooping cough when you were a child. I think I had them all and I thoughtfully gave them to my sister.

Maybe twenty years ago were still the dark ages. There was scarlet fever, too, and diphtheria. And we still have chickenpox. Maybe some day children won't get sick; maybe they won't be told they're supposed to get sick.

—F.C.

DON'T CALL IT THE EMERGENCY ROOM

The hospital used to be made up of a collection of all-alike rooms sometimes grouped into clutches called wards. The wards have gone; they are generally replaced by private and two-bed rooms.

Some rooms then became specialized, and we had a few for those who needed less than the usual amount of hospital staff care, and they may have been called self-care sections; there were rooms for those who required considerably more than average care, and these were named intensive care; and there were the unchanged rooms for the average patients.

But most hospitals had a little room on the ground floor, and I think it was once known as the accident room. A kind of medicine was practiced here, and this was an inroad or a toe-in-the-door.

Since the hospital was a sort of nerve center, as it was staffed with nurses and related personnel and often by doctors, and because it housed equipment necessary for life-saving as well as for health maintaining, people somewhat naturally turned to it for help in emergencies. The hospital was open night and day and on weekends and holidays. Its doors were never closed, and hospitals are easy to get to.

And after a while, people began to come to the accident room, which was now called the emergency room, in larger numbers and for less urgent problems. Not too many years ago, our ER was one room and it was not too well equipped as I look back. It was replaced by another single room, and this may have been just a little larger, and it was full of medical apparatus.

Calls from this room were answered by interns and in their absence by staff physicians who took turns at this.

The hospital now has six large rooms, a doctor always in attendance who does nothing else, two or three full-time nurses, and all kinds of equipment. And all varieties of medical problems are dealt with there, from real emergencies to colds and sore throats.

This is because everybody knows where the hospital is, there is parking space, the room is always open, and the patient doesn't have to wait days for an appointment. Nobody is ever turned away, I am told.

But it is no longer an accident room, nor has it merely to do with emergencies. It has come a long way from the once nondescript, haphazardly attended and not well equipped cubicle to a large suite of well-lighted and properly furnished rooms, with doctor and nurses ready.

Call it something else, then. The Outpatient Department sounds all right, and so does the General Practice Area. There are all sorts of likely names: things like Ambulatory Medicine and Family Practice come to mind, or we might say The Clinic, a wonderful old word that could be given a rebirth. We might try The Office, or The Dispensary, or Primary Medicine, or The Medical Center.

But give it a new name. It needs a new name and it deserves one.

—F.C.

ON PATIENTS, IMMORTALITY, AND TRANSPLANTS

Children are born, and their parents die; and the children are grown into parents, and *their* children are born, and the children-grown-into-parents die. We all of us achieve a kind of immortality in this way, for are there not cells that never die, do we not have immortal germ cells that keep us alive forever?

And when we have done this, why then, when I have done this, my child is nothing less that a total transplant; a total body transplant, but with a mind and with a ego of his own, and with a soul all his own, if you do not refuse to believe in souls.

What we accomplish now is but a feeble attempt to transplant with kidneys and corneas, a kind of patching up, a stemming of the tide, a putting off of the day that will come when it will come.

But this other thing I speak of, this children thing, this renders us immortal, and this shames us, for this is the real transplant; total, that is.

—F.C.

Factor XIII Deficiency: Report of a Case Complicated by Splenic Rupture

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A rare cause of a congenital hemorrhagic diathesis is Factor XIII deficiency. Despite its rarity, the condition is seen in Nebraska, and it presents a perplexing clinical problem for the physician.

In 1960, Duckert described the first case of a congenital hematological diathesis due to fibrin stabilizing factor deficiency.[1] Over 90 such cases have since been reported. Typically these patients may have hemorrhage upon separation of the umbilical cord, a delayed bleeding tendency, poor wound healing, frequent hematoma formation, and prolonged oozing after trauma. The most catastrophic complication of Factor XIII deficiency is intracranial hemorrhage. Duckert reported intracranial hemorrhage in 26.6% of patients with Factor XIII deficiency with a mortality rate of 5.3%. Intracranial hemorrhage was noted only in 2.2 to 7.8% of patients with hereditary deficiencies of Factor 8, 9, or 11.[2] Laboratory studies in this disorder demonstrate abnormal clot solubility in 5 M urea and 1% monochloroacetic acid, whereas routine coagulation studies are normal.

The present case report describes a young girl who presented shortly after birth with intractable bleeding from her umbilical stump. Two years later she sustained a traumatic rupture of the spleen, and had a splenectomy. This paper presents the diagnostic studies, management, and discussion of this problem.

Case Report

The patient was born on 12/13/69 of an uneventful pregnancy and delivery. Ten days after delivery she was admitted to the hospital because of active bleeding from her umbilical stump. Bleeding was controlled by ligation and the patient was discharged. Studies including a platelet count, prothrombin time, partial thromboplastin time, and bleeding time were normal. The patient was re-admitted one day later and immediately required 65 ml of fresh whole blood because of hypovolemic shock. A celiotomy was performed with ligation of bleeding vessels on the undersurface of the umbilicus. On 12/18/70 the patient was admitted for continuous bleeding from the frenulum of her upper lip induced by a fall. At that time a hemostatic defect was suspected, and further evaluation disclosed Factor XIII deficiency. Table 1 shows that the prothrombin time, platelet count, fibrinogen level, partial thromboplastin time, and bleeding time were again normal but complete lysis of her blood clot occurred within 45 minutes in 5 M urea. (Normal $\geq$ 24 hours). Hemostatic studies of the patient's family also were performed and proved to be normal (Table 1). Factor XIII assay by a specific method[11] disclosed a value of 2.2 FSF units with a control of 27 units.*

Since birth the patient has been admitted to the hospital on 18 occasions because of lacerations and hematoma formation. Her typical history consists of cuts which soon stop bleeding, but 6-12 hours later begin to ooze incessantly. Each episode has responded well to the infusion of fresh frozen plasma or whole blood.

On 11/23/71 the patient was found in an unresponsive condition and was brought to the emergency room. During the previous night she had fallen out of bed, but was apparently unharmed, for she carried on her usual activities during the day. She went to sleep in the afternoon and could not be aroused three hours later. Upon admission she was in hypovolemic shock and was given blood by intravenous push to which she responded favorably. The patient was taken to the operating room, and approximately 500 ml of old blood was found in the peritoneal cavity. The spleen was mobile and lacerated, and splenectomy was performed. With transfusion of fresh whole blood and fresh frozen plasma the patient's recovery was uneventful.

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*Kindly performed by Beth Letheby, M.S., M.T. (A.S.C.P.)

Discussion

This patient is believed to be the first reported case of Factor XIII deficiency in Nebraska. Her history is characteristic of cases previously described in the literature. She presented shortly after birth with bleeding from her umbilical cord and had repeated episodes of intractable bleeding from minor lacerations. Another characteristic of Factor XIII deficiency which the patient demonstrated was delayed bleeding, that is, bleeding that stopped initially only to re-bleed hours later. Beck et al has suggested that rebleeding results from early dissolution of nonstabilized fibrin, before granulation tissue is sufficiently firm to close the wound definitively.[3] He concluded that congenital Factor XIII deficiency is the cause of both pathological hemostasis and poor wound healing.

An apparently unique feature of this case was the traumatic splenic rupture. The patient was comatose on admission to the hospital, but with transfusions of fresh whole blood and fresh frozen plasma before and during surgery the patient recovered without complication.

The urea solubility test was used by us in the diagnosis of this problem. When performing this test, one must determine serum fibrinogen levels for hypofibrinogemia and hyperfibrinogenemia are known to cause a falsely abnormal urea solubility test. False positive results may occur because the action of fibrin stabilizing factor (FSF) is dependent on the quantitative relation of FSF to fibrinogen.[4] Falsely abnormal results can be obtained in hepatic disorders and a role for the liver in the activation of fibrin stabilizing factor or for the removal of inhibitors has been suggested.[5] Fibrin acts to reinforce the primary or temporary platelet thrombus and experimentally usually appears within one minute after injury. It is deposited within the thrombus and adjacent to normal endothelium with the end result being a permanent and impermeable hemostatic plug.[6]

The formation of stabilized fibrin from fibrinogen occurs in the last phase of coagulation. Thrombin, a potent proteolytic enzyme, hydrolyzes four arginine-glycine peptide-bonds of fibrinogen, forming fibrin monomer and four fibrinopeptides (2 each of peptide A and B).[7] Fibrin monomer then undergoes spontaneous polymerization through the formation of hydrogen bonds to produce soluble fibrin. At this stage the soluble fibrin clot is mechanically fragile and can be dissolved by inhibitors of hydrogen

TABLE 1

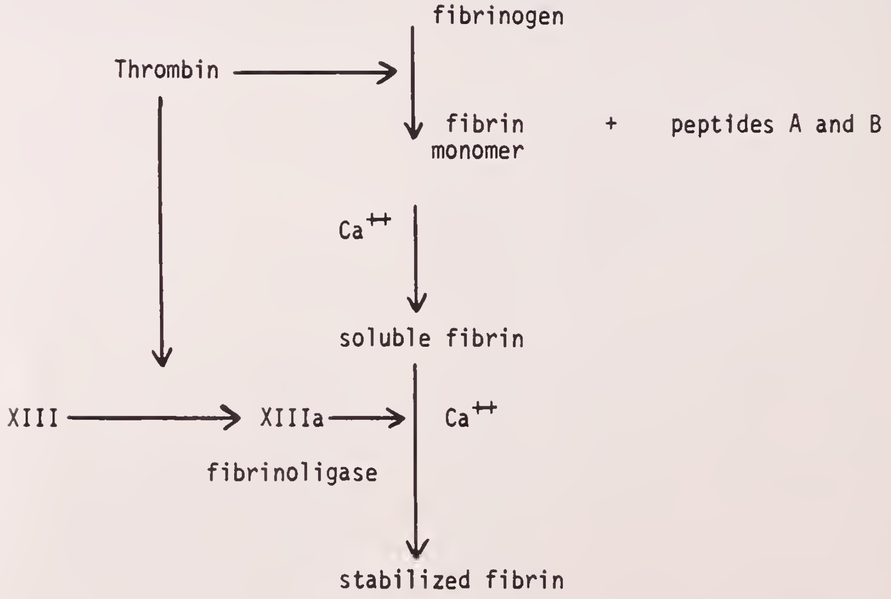
	D.L.		Sister	Mother	Father
	12/21/70	4/28/75			
Platelet Count	180,000	444,000	263,000	257,000	215,000
Prothrombin Time	11.3/13.3	12/12	12/12	12/12	11/12
Partial Thromboplastin Time	36.6/41.2	23/33	22/33	21/33	22/33
Bleeding Time	3' 37"	3' 30"	2' 30"	1' 30"	3'
Clot Lysis in 5 M urea	45 min.	20 min.	>24 hr.	>24 hr.	>24 hr.
Fibrinogen	(normal)	240 mg%	180 mg%	295 mg%	220 mg%

bonding, such as urea or monochloracetic acid.[8] This is the end-point of routine laboratory testing, including the prothrombin time, and partial thromboplastin time, thus those tests are unaffected by the presence or absence of Factor XIII or its resultant stabilized fibrin clot. In the final step of normal blood coagulation soluble fibrin is converted into stabilized fibrin through the action of Factor XIII. Factor XIII is an α_2 globulin with a molecular weight of 320,000. It is made of two different types of subunits, an α chain of molecular weight 75,000 and a β chain of molecular weight 88,000.[9] Activated Factor XIII (fibrinoligase) is formed from its proenzyme (plasma Factor XIII) by the action of thrombin (see Figure 1). This step involves the removal of a peptide from the alpha chain of the pro-enzyme forming the active transpeptidase, fibrinoligase.[10] Fibrinoligase, in the presence of calcium, forms covalent bonds by catalysing a reaction between the epsilon amino groups of lysine and the gamma glutamine carbonyl groups of adjacent fibrin molecules.[11] The stabilized fibrin thus formed provides an extremely strong and stable framework for the hemostatic plug.

The gentics of congenital factor XIII deficiency are not entirely elucidated at present. It is thought to be inherited as an autosomal recessive trait, but because of a significant difference in the frequency of consanguinity among the parents with and without affected females in families with Factor XIII deficiency, an X-linked mechanism of inheritance is also suggested.[12]

Factor XIII is found in plasma and platelets but it is only found in trace amounts in serum, for it is believed to be adsorbed onto the surface of fibrin.[13] Factor XIII deficiency thus is treated with fresh frozen plasma, reconstituted dried plasma, or cryoprecipitate. Because the half-life of Factor XIII is longer than that of other coagulation factors, (estimated from 3-12 days) and only 1% of normal levels of plasma Factor XIII are needed to prevent pathological bleeding, prophylactic therapy has been proposed.[14] Fisher and co-workers in 1965 administered 300 ml plasma every 10 days during pregnancy and succeeded in bringing to term a female patient with Factor XIII deficiency who had twelve prior abortions.[15] There have been other patients treated prophylactically but there are certain disadvantages with such therapy. The use of plasma fractions involves the risk of serum hepatitis and immunization to serum proteins. In addition, the development of a neutralizing antibody against Factor XIII would be a serious drawback. Psychological factors also must be considered in planning prophylactic therapy. It would seem obvious

FIGURE 1



that some patients would become so dependent on therapy that it would be almost impossible to discontinue treatment once it began. Thus, it is difficult to weigh the benefits of prophylactic therapy against its risks. Prophylactic therapy was not utilized in this patient, and over the past two and one half years her transfusion requirement has decreased to approximately 2-3 per year.

In conclusion, Factor XIII deficiency is a rare hematologic disorder, characterized by bleeding from the umbilical cord at birth, prelonged bleeding from cuts, and poor wound healing. Routine laboratory studies are normal, and thus it is diagnosed most easily by an abnormal clot solubility in 5 M urea. The condition is adequately treated by transfusions of fresh frozen plasma or whole blood.

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Methotrexate Induced Colitis

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METHOTREXATE was introduced in the late 1940s for the treatment of acute leukemia. Since then its use has expanded to include other neoplastic and non-neoplastic conditions.Methotrexate has been used alone and in combination with other antineoplastic agents in the treatment of breast carcinoma.

A case follows of a patient with metastatic breast carcinoma treated with a combination of Cytoxan (cyclophosphamide), methotrexate,[1] prednisone and Cytomel (liothyronine) who developed a near fatal toxic reaction to methotrexate. This case was unusual because of the severity of the toxicity in a patient receiving very low methotrexate doses and because of colitis which persisted for some time following recovery of other tissues. It provides an opportunity to discuss the GI toxicity in detail, other toxicity briefly and the predisposing factors of Methotrexate toxicity.

Case Report

The patient was 48 and premenopausal when she developed breast cancer in 1961. Following a left radical mastectomy and postoperative radio-therapy, she did well until November 1969, when a subcutaneous chest wall metastasis developed. An unknown hormone was administered in May 1970 and April 1971.

On July 1972, she was first referred to the University of Nebraska Medical Center for evaluation of lumbar pain. No metastases could be found to explain the pain and no treatment was given. In January 1973, a 1 cm right breast nodule was biopsied, found to be a highly undifferentiated adenocarcinoma, and was treated with a right total mastectomy. She was subsequently treated with androgens and then estrogens for pulmonary metastases, further radiation therapy for osseous metastases, hip pinning for a pathologic hip fracture, and weekly 5-FU for disease progression.

On 19 September 1974 because of worsening skin metastases, her chemotherapy program was changed to Cytomel 50 mcg daily, Cytoxan 50 mg daily, prednisone 30 mg daily and methotrexate 1.25 mg orally every other day. She was reevaluated a week later and no side effects of the therapy were noted, but her BUN was slightly elevated at 24. She was instructed to continue her medicines and return in one month. Soon afterwards, she noted sores on her lips, followed by diarrhea and abdominal cramping. These symptoms became worse over a 3 week period, but the patient continued taking her chemotherapy. The diarrhea then became bloody and the patient became acutely ill, prompting admission to the University of Nebraska Medical Center on October 13, 1974. On admission, she was in acute distress with a blood pressure of 88/60, pulse 120 and temperature of 38.5 degree C. Nail beds and conjunctiva were pale, and numerous petechiae were noted. Several vesicular lesions were present on the mucous membranes of her lips. The cutaneous metastases had decreased in size and number. There were hyperactive bowel sounds, diffuse abdominal tenderness, and no organomegaly. Proctoscopy to 15 cm revealed normal mucosa, but bloody fluid coming from the bowel lumen above the scope. Hemoglobin was 7.7 gm%, MCV 107, WBC 1,600 mm^3, and platelets 5,000 mm^3. By October 22, 1974, the WBC had returned to 8,400 mm^3 and the platelet count corrected soon after. The creatinine varied from 1.0 - 1.5 through this period; creatinine clearance was about 40ml/hour. Other complications during this period included transient supraventricular tachycardia and atrial fibrillation. She also developed a urinary tract infection.

She continued to complain of diarrhea, abdominal cramping and had hematest positive stools that required transfusions in spite of a normal platelet count, so a barium enema was done on October 30, 1974, which revealed diffuse mucosal ulcerations (see Figure #1). No specific therapy was given, and the barium enema was repeated on November 11, 1974 showing marked improvement (see Figure #2). The patient's symptoms gradually improved and she was discharged taking Cytoxan, Cytomel, and prednisone, but no methotrexate was given. Three months later she remains asymptomatic.

Discussion

Methotrexate is thought to exert its effect on tumor cells by binding irreversibly to dihydrofolate reductase, thereby interfering with one carbon metabolism,[2] thus inhibiting nucleic acid synthesis. Unfortunately, this effect is not limited to tumor cells. The more rapidly dividing normal cells are also at risk; bone marrow, gastrointestinal mucosa, skin and hair follicles.[3] The toxic effects of the drug are most often related to these tissues, but all metabolizing cells can be affected and many toxic effects of methotrexate have been reported. (Table 1).

The most frequent toxicities are those of the bone marrow and gastrointestinal tract. Light microscopic changes in the mucosal lining of the proximal small bowel of patients appear even after clinically nontoxic doses of methotrexate are given. Arrest of mitoses in the mucosal cells (villous, goblet, crypt and parietal) 6 - 12 hours post-methotrexate occur with a return to normal in 28 - 66 hours. Electron microscopic changes consist of vacuolization of endoplasmic reticulum and golgi cisternae, distortion of microvilli and coarse clumping of muclear material. These findings suggest that gastrointestinal toxicity may occur because of interference with replacement of intestinal epithelium in some cases.[12, 13]

Mucosal oral ulcerations are often the earliest sign of methotrexate toxicity. Initially, the patient complains of oral pain or burning, especially during meals. Then areas of erythema of the pharyngeal wall buccal mucosa appear which in a matter of hours to one or two days developing into small flat ulcers with a red edge covered by a soft

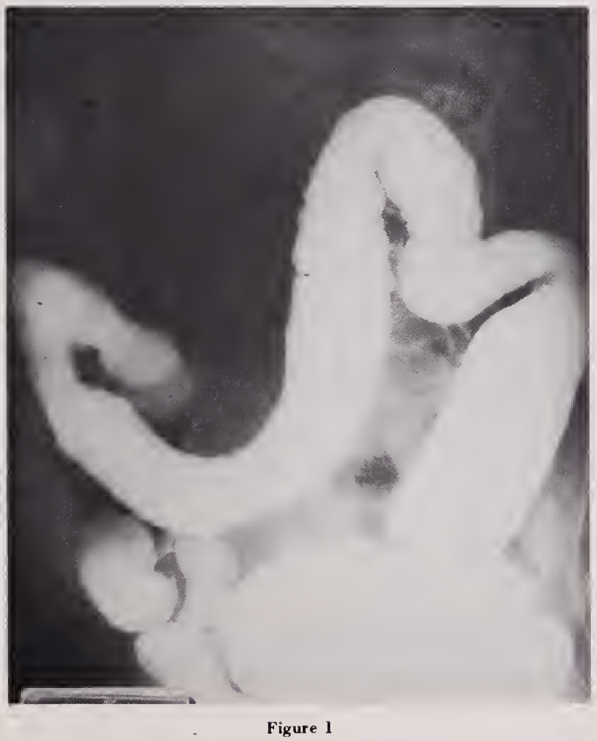

Figure 1
Initial barium enema showing diffuse micosal ulcerations granularity and loss of haustral markings. Note the most marked changes are found in the ascending and transverse colon.

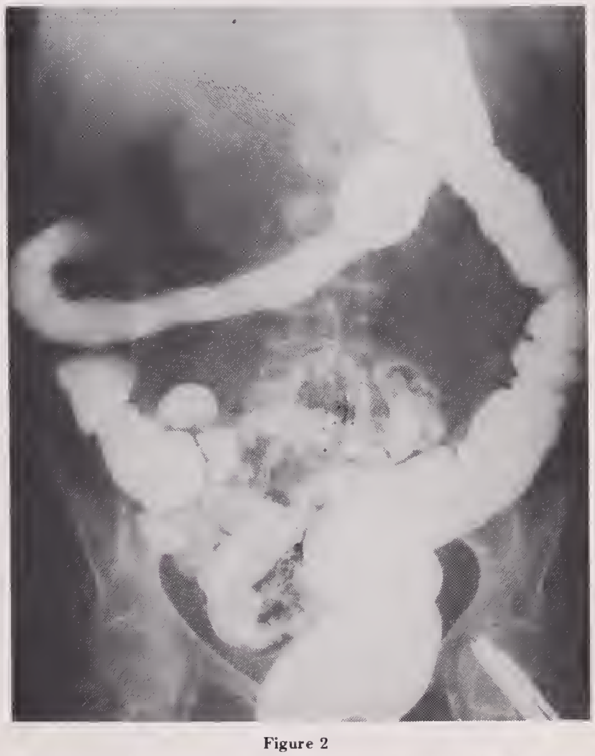

Figure 2
Followup barium enema two weeks later. Note almost total disappearance of ulcerations.

white friable membrane. Very often the lips are involved initially, followed by the oral lesions. Other gastrointestinal symptoms can occur including nausea, vomiting, dysphagia, abdominal cramping and diarrhea. If the drug is not stopped when these problems appear, extensive superficial hemorrhagic ulcerative colitis involving the entire colon can occur. A diphtheritic membrane containing many bacteria is found covering the ulcerations.[14] The case reported here seems to be consistant with a methotrexate induced colitis. When all other signs of cellular toxicity (bone marrow, oral lesions) subsided, the patient had symptoms and radiologic findings mimicking pseudomembranous enterocolitis. This appears to be self-limiting, requiring supportive treatment only.

Marrow toxicity consists of pancytopenia with minimum values occurring at a time, post methotrexate administration, correlating with the life span of the individual elements: reticulocytes 3 - 4 days, platelets about 10 days and granulocytes 6 - 11 days.[15] As this case demonstrates, severe marrow depression can result even when modest dosages of methotrexate are used. Patients usually recover from the pancytopenia within two weeks of the last dosage administration. Chronic irreversible bone marrow aplasia resulting from prolonged methotrexate administration has been reported but not documented.[7]

There are some factors which increase the risk of development of toxicity. The toxic and therapeutic effects are dependent more on the duration of an effective concentration than the height of the blood level.[7] Methotrexate is completely absorbed at usual oral doses with little drug metabolism occurring after absorption. It is excreted unchanged in the urine for the most part; less than 10% of each dose is excreted in the stool. Thus an oral dose is much more toxic than an equal parenteral dose, because the duration of the blood level is prolonged. Severe toxicity can occur if the patient has even slight renal insufficiency, because delay in drug excretion results in prolonged blood levels. No patient with abnormal renal function should be treated with methotrexate. Bone marrow insufficiency due to replacement by tumor (except leukemia), radiation or prior chemotherapy, administration of anabolic agents and hepatic disease can predispose to methotrexate toxicity. There also seems to be an association with advanced age and methotrexate toxicity.[16]

A significant and less well known reported effect of methotrexate is renal toxicity manifested by microscopic evidence of tubular damage, azotemia and decreased creatinine clearance. Marked changes in renal function can occur with little or no associated clinical toxicity. The incidence of this toxicity is unknown, but all patients on the drug should have renal function studies periodically.[8]

The patient reported here had several predisposing conditions which could have contributed to her near fatal toxicity including testosterone administration, previous radiotherapy to bone, previous chemotherapy and possible renal toxicity secondary

TABLE 1

REPORTED TOXIC EFFECTS OF METHOTREXATE

Hepatic fibrosis [4,5,6]

Skin changes [7]
  Brownish pigmentation
  Perifolliculitis
  Other

Pleuritic chest pain [3]

Alopecia [7]

Localized peritonitis [3]

Renal toxicity [8]

Pulmonary infiltration [9]

Osteoporosis & pseudofracture [10]

Neurotoxicity [7]

Teratogenicity [7]

Hot flashes [11]

Gastrointestinal toxicity [11]
  buccopharyngeal ulceration
  nausea & vomiting
  abdominal pain & diarrhea
  colitis

Bone marrow toxicity
  leukopenia, anemia
  thrombocytopenia

to methotrexate. However, patients with no apparent predisposing factors can develop severe toxicity.

Summary

A patient who developed severe methotrexate toxicity including pancytopenia, mouth ulcerations, nausea and vomiting, diarrhea and colitis, while taking modest doses of methotrexate is presented. A brief discussion of the biochemistry, physiology and toxicity of the drug follows, including a group of predisposing factors for the development of methotrexate toxicity.

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Nutrition and Physical Fitness: Food Fads and Quackery

PART I

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FOOD fads and quackery develop from a wide variety of concepts, some based on data reliable for isolated population groups or single individuals and some based purely on hypothetical but erroneous reasoning. Whatever the case, the final step in the fad is to present it as a moral problem. A nutrient or a group of nutrients are either good or bad for us. Clinical medicine is not free of these fads; some therapeutic programs in nutrition have developed through such reasonings. Rarely, advances in nutritional therapy are made in this way. Often, however, years are spent by others in evaluating such ideas, only to find that they are, indeed, unfounded hypotheses.

The best way to develop nutritional therapy is to base it on physiologic or biochemical approaches. These approaches produce a wide spectrum of different nutritional therapeutic programs whose benefits depend on the problems of the individual. Examples of these approaches are of interest because they do, indeed, focus on particular manipulation of the various nutrients in the diet, much as food fads do, but they relate only to specific problems. Because manipulation is beneficial to these isolated patient populations, it does not mean all members of our society would benefit. Examples of extreme focus on a particular nutrient for good cause are worth citing because no one would advocate similar dietary changes for the general population.

Protein

One of the most impressive and perhaps most noteworthy developments in clinical nutrition in the past decade has been the treatment of chronic renal disease by lowering protein intake.[1] The program has kept patients working, feeling well, and out of hospitals even though they have severely impaired kidney function. In anephric human beings awaiting kidney transplantation, control of water and protein intake to a point where only sips of water for medications were allowed (no free water in the form of coffee, tea, or water was drunk, and only enough protein fed to satisfy obligatory needs) made it possible to postpone hemodialysis for 10 days.[2] At the end of this period — equivalent to urinating only once in 10 days — the patients had remained ambulatory and were in good clinical condition. Much time and money spent on dialysis were saved and the patients preferred the program.

No one would advocate such a diet for the general public, despite the excellent response of these subjects with chronic renal disease. Yet, unfortunately, quite unfounded food fads do prevail in our society, advocating diets extremely high in protein or diets containing poor quality protein. According to followers of one fad, excess protein is good for you because protein is meat, meat is muscle, muscle is strength, and since we are what we eat, we will be made strong by eating high protein diets and perhaps stronger yet if we take protein and amino acid supplements. Increases in dietary protein consumption in man increase blood urea concentration, increase albumin synthesis and catabolism, increase total body protein synthesis and turnover rates,[3] and decrease life-span of some cells.[4] There is a metabolic cost of obtaining calories from protein that exceeds the cost from carbohydrate and fat. Excessive protein consumption, therefore, "idles" the body engine faster while producing no demonstrable favorable metabolic effect. It may be a factor that decreases life-span.[3] From a preventive health aspect, therefore, moderation in protein consumption is the best choice; we need it, but excessive consumption has no basis from a nutritional point of view.

Zen Macrobiotic Diet. — Zen macrobiotic dietary programs, which, on the other hand, have led to protein-calorie malnutrition, have been developed for infants.[5] Protein in these diets have amino acid patterns that are poor and total calories are low. The Zen program supplies only about 40% of the recommended dietary allowances for infants less than 1 year of age. The Zen diet is also greatly diluted: 1,750 to 2,000 ml of formula must be consumed to provide only 570 calories per day. The diet is imbalanced in nutrient content. For instance, in some studies the content of protein, calories, calcium, phosphorus, iron, niacin, and vitamin B_{12} was found to be quite low; the content of vitamins A, B_1, B_2, and C was quite high. Vitamin A was 650% greater and vitamin C was 520% greater than accepted requirements.[6] Imbalanced diets in experimental animals have produced more serious effects than have semistarvation or complete starvation.

Carbohydrate

Several food fads exclude carbohydrate as much as possible, as a "healthy" measure. A rare instance where dietary carbohydrate is life-saving can be cited, however. The identification of carnitine deficiency as a cause of human lipid storage myopathy was reported recently.[7] Muscle carnitine deficiency in man results in impaired fatty acid oxidation by mitochondria in muscle and produces a lipid storage myopathy and muscle weakness. A dietary approach based on carnitine replacement therapy plus an extremely low-fat diet was developed that benefited the patient. Dietary fat was reduced, and that which was allowed was made up of medium-chain triglycerides. The normal long-chain triglycerides of the diet were excluded as much as possible. The patient improved. Although the diagnosis is extremely rare, one could use this experience as a basis to develop a food fad that promoted excessive consumption of carbohydrate. The concept could be derived that carbohydrate is life-saving — perhaps true for one patient, but certainly not true for all.

Restriction of dietary carbohydrate, on the other hand, can be beneficial in the treatment of convulsive disorders. A ketogenic diet containing only 10 g carbohydrate per day is an effective measure in controlling certain types of seizures.[8] From this experience, however, there is no more basis to restrict carbohydrate for everyone than there is to promote its consumption, as discussed above. Several fad diets, however, restrict carbohydrate as a health promoting measure.[9-11] Such diets, stressing either high protein and fat consumption or carbohydrate restriction, produce ketosis. In the ketotic state, ketones compete for excretion with uric acid and, as a rule, ketone excretion wins. Blood uric acid increases and with it the incidence of urinary calculi. Ketone excretion is thought to rid the body of excess calories. However, only 3 g of ketones per day are usually excreted in the urine on ketogenic diets; this is a negligible loss of energy (27 Cal at the most).

Many of these diets rely on high protein consumption — usually necessary for a lifetime considering that weight problems remain with us that long. It should be reemphasized at this point that the metabolic cost paid for a lifetime of high protein consumption is more rapid protein formation and breakdown, urea synthesis, and the tendency to shorten the life-span of cells.[3,4] Furthermore, ketogenic diets such as these decrease the performance of athletes and decrease physical fitness.[12] There is no place for consumption of these diets by the public.

Functional Hypoglycemia. — This syndrome, more and more diagnosed in healthy individuals, focuses on dietary carbohydrate as the cause. The stimuli that can produce hypoglycemia, however, are excessive exercise, lactation without adequate calorie intake, a high protein meal, and alcohol — not dietary carbohydrate. At times a combination of these proven factors will produce hypoglycemia in an otherwise normal individual. A lactating woman on a diet may have an alcoholic beverage and engage in exercise, all within a short period, and precipitate hypoglycemia. The diagnosis of functional hypoglycemia to explain symptoms not related to hypoglycemia is popular today. Such patients do not and cannot correlate their symptoms with the decrease in blood sugar during a glucose tolerance test. Many times physicians prescribe frequent high-protein feedings to counteract the effect of so-called hyperinsulin secretion induced by dietary carbohydrate. Some amino acids, however, are more effective stimuli for release of insulin than is glucose.[13,14] Thus, this treatment is completely opposed to the physiologic approach if such a diagnosis truly exists.

Vitamins

Vitamin E. — This substance is a fat-soluble vitamin; it is stored much as fat and other fat-soluble vitamins are stored. Vitamin E has been shown to be toxic for animals. Many nutritionists have assumed that it is toxic in human beings also, and now some evidence supports the supposition. Vitamin E produces coagulopathy in human beings when taken in excess.[15] Some athletes have taken vitamin E to improve athletic performance. Vitamin E at a level of 900 IU daily for 6 months did not improve athletic performance of well-trained swimmers.[16]

Vitamin C. — Vitamin C supplementation increases its own destruction.[17] Guinea pigs pretreated with vitamin C and fed a diet deficient in vitamin C developed scurvy sooner than control pigs not pretreated with vitamin C. Scurvy has been noted in humans who have had a history of taking excessive amounts of vitamin C and who have returned to a diet that contains normal amounts of the vitamin. Humans who consumed 5 g of vitamin C per day had no difference in blood levels than control subjects who ate a similar diet but took no vitamin C. These data suggest that the increased rate of destruction of vitamin C produced by the supplementation persists after supplementation is stopped, and thus not only destroys the vitamin C that remains but also that which is taken in food. An indication that vitamin C induces an allergic response has been noted when vitamin C was taken in high doses.[18] The possibility of becoming allergic to a vitamin is life-threatening. Other studies on vitamin C have indicated that excessive doses of vitamin C ingested with food destroy vitamin B_{12}.[19] Excess vitamin C in some individuals increases the risk of renal stone formation.[20]

Vitamins A and D. — Vitamin A and vitamin D are well-known vitamins, which are toxic when taken in excess. The margin of safety between benefit from increased intake and toxicity is small for vitamin A. The recommended daily allowance is 5,000 IU. Toxic reactions have been produced with as little as 18,500 IU/day.[21]

Nicotinic Acid. — In excess, nicotinic acid inhibits the uptake of fatty acids by cardiac muscle during exercise.[22] Since fatty acids are important fuels of the heart, vitamin supplements containing niacin are contraindicated before strenuous athletic performance. There are other known complications of niacin produced when it was taken in excessive amounts for the treatment of hypercholesterolemia. These include flushing, itching, hyperbilirubinemia, liver cell injury, portal fibrosis, cholestasis, dermatoses, hyperglycemia, hyperuricemia with gouty arthritis, and peptic ulceration.[23]

My Fifty Years

H. S. TENNANT, M.D.

I was born at Tuskeego Iowa and moved with my parents to Pawnee City Nebraska where I attended school and graduated from High School in 1914. After graduation attended Peru Normal and then taught school before entering the service in 1917. Discharged from the Navy in 1918 took me back to the classroom for another year before enrolling at the University of Nebraska. Graduated from the University in 1924 with B.S.C. and the College of Medicine in 1926. The following year I interned at the Methodist Hospital in Omaha, working most of the time with the late Dr. Charles Kennedy.

In 1927 I bought in with Dr. Silas G. Allen at Stanton Nebraska. Stanton is also the county seat of Stanton County, where I have practiced ever since. Considered myself very fortunate to be associated with a doctor who had been practicing many years as he taught me many procedures that were not found in books, such as reduction of fractures. Soon found out that he wanted me to be the obstetrician of the firm. We were partners for 18 years when he died of a stroke. For many years I have been the only doctor in this county. We have one other town in the county which has no doctor, as well as six border towns.

Like all doctors who are general practitioners, I have had many experiences especially with maternity cases. I will relate one which made quite a profound impression on me. It was a typical Nebraska winter night, with snow and high winds. Jokingly I had just commented to my wife wouldn't it be a good night to go to the country. At about 11:30 the phone rang, and an unfamiliar voice stated his wife was going to have a baby — they lived 7 miles south of Stanton and conversation revealed their doctor was in Norfolk which was another 10 miles from Stanton, and the suggestion was made that he call his doctor. Evidently he made that call for in about 5 minutes the phone rang and he stated that he called Dr. Farner and it would be all right for me to deliver the babe. The weather and road conditions as such I told him it would be impossible for me to get to their home. Another five minutes elapsed and the phone rang again only this time it was the county commissioner saying he would send out a patrol, and that I could ride in a four-wheel drive truck which would follow the patrol. Everything went well until the driver of the patrol was blinded by the blowing snow going down hill and went into a ditch. Walking was not a new experience, but it was the longest half mile I had ever made. My driver helped to carry the grip and we made it to the farm. Needless to say the babe had arrived long before I got there. But, I was happy that I had gone for the mother was bleeding badly from retained placenta which I was able to get, packed her good and floundered back to our truck reaching home 12 hours later.

As the years went on we started taking our cases to the hospitals, and what a blessing for all concerned. I quit taking maternity cases about 4 years ago after having reached the third generation. Norfolk is only a 20 minute drive on a level hard surfaced road which has two excellent hospitals, well equipped, and staffed with competent doctors and nurses, along with an excellent pathology laboratory.

Besides practicing medicine I took an active interest in the civic affairs of our city. Serving on the town council for 44 years; 8 as councilman and 36 as mayor. Probably one of the highlights of community service was on July 4, 1975 when the city celebrated the Bicentennial and dedicated the event to me for my service in both medicine and city government. It was the one time I received a standing ovation from the citizens of Stanton and vicinity, was presented with a plaque from the City, a letter from Governor Exon as well as an appointment of Admiral in the Nebraska Navy. This event assured me that all my efforts were appreciated.

My one wish is that ere long I will be able to find a young doctor who desires to start general practice in a territory which is rewarding not only in a monetary way, but wholesome living.

I am fortunate to have lived in this generation of medicine both before and during the era of specialization. When I started out the practitioner had to do surgery and deliver babies. I often wonder what the next fifty years will bring to the medical profession.

H. S. Tennant, M.D.

The MECO Experience

RANDALL L. LINTON

and

DENNIS D. HICKSTEIN

THE community hospital offers an excellent learning opportunity that is often lost in medical school . . . Without MECO, I would not have been able to know small community practice. Likewise, I would probably not have had such an excellent opportunity to compare family practice with other specialties in terms of my own interests."

This quote by a recent participant in the American Medical Student Association's MECO (Medical Education & Community Orientation) program typifies the attitude of medical students across the country who spend a summer gaining firsthand exposure to medical practice in the community setting. The MECO program was developed in 1969 as a pilot program in Illinois and has now spread to over four-hundred community hospitals across the country. Last year, Nebraska's fourth year in the project, over 30 Nebraska communities offered medical students a unique opportunity to be a part of small town medicine in terms of both clinical experience and community awareness. In exposing preclinical medical students to practice in community settings, MECO's primary goal is to effect a redistribution of physician manpower. In Nebraska, the project is operated in cooperation with the Nebraska Academy of Family Practice, the Nebraska Hospital Association, and the University of Nebraska College of Medicine Department of Family Practice.

The MECO program provides a wide variety of experiences for the sponsoring community and physician as well as the student. We have briefly outlined a few of these experiences in the following discussion.

The Community Experience

Community hospitals across the state participate in MECO as they play an active role in the training of future physicians. By exposing the student to the community practice of medicine before he or she has made career decisions regarding practice location and specialty, MECO provides the student with a data base for considering community practice as a viable alternative. More than three fourths of student participants over the past years have stated in project evaluations that they would be interested in returning to their MECO community or a similar community to practice.

The Physician's Experience

The physician in the MECO program has much to gain in terms of refreshing one's approach to medical problems as well as the satisfaction of training a future colleague. Physicians report that having a student with them slows them down much less than they expected. The student spends a good deal of time in the operating room, emergency room, radiology, or with the administrative and social service personnel of the hospital and community health agencies.

The physician should not feel that he or she has to give a complete course in physical diagnosis and patient management. Rather it is hoped that the student will come away with an accurate concept of medical practice in a community. Physicians participating in MECO may receive 30 hours of continuing education credit from the American Academy of Family Physicians for three summers participation. The American Medical Association recommends 18 hours continuing education credit to any physician, regardless of specialty, for a three year participation.

The Student's Experience

Medical students participating in the Nebraska program are from both the University of Nebraska and Creighton University Colleges of Medicine. Students receive room and board and a maximum stipend of $85 per week which is usually provided by the medical staff and the hospital association of the sponsoring community. The student is often housed in hospital-owned facilities and meals are provided in the hospital cafeteria. Projects are of a 4 to 8 week duration depending upon the student's curriculum.

Students have frequently viewed their MECO experience as one of the highlights of their medical education. Questionnaire responses reveal over 98% of the participants in past MECO projects recommending the program to others. One medical student summed up the experience in the following way — "Really good medicine is practiced in small towns, but the doctors are so overworked. I'm not sure whether I'll choose to practice in a small town, but now at least I'll consider it. Before MECO, I'm not so sure I would have."

Additional material regarding the MECO project in Nebraska may be obtained by writing:

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President's Page

Two hundred years ago, in the dark days of our country's birth, Thomas Paine declared, "These are the times that try men's souls.". Our country has passed through many soul-trying times since then and has survived because of the vision of leaders, the determination and resolve of enough people to make a difference, and the strength and fiber to see things through.

Now our country is involved in a soul-trying time, but the crisis has so many focal points it is difficult to say exactly what it is. But we in medicine know what it is for us: It is our survival as a profession, free and obligated to do the very best we can for our patients, with all the skills and tools we have.

We know there is no need for a new "health care delivery system" or a national health insurance program. We know that we are providing excellent medical care to almost all the people of this country and that we are capable of extending it to everyone. We know that we are responsible for none of the social problems — poor housing, unemployment, bankrupt cities, food distribution, and other ills — to which society and government should respond. We can do much, and ever more, to cure disease and to prevent it, but we cannot do all of it, nor should we be blamed for that.

Each physician's office is the most effective classroom we have to tell people about these things. Most of them already agree and regard their physician and the profession very highly. Perhaps our forced involvement in politics as part of efforts to reform medical liability legislation may turn out to be a good thing. We are acquiring skills in practical politics, as we have been pulled together in one of the most effective, united efforts this Association has undertaken. Every physician can use this new knowledge to bring opinions to bear on those politicians in Washington who have no idea what quality medical care is. We can tell our people what government intervention will do to that unique doctor-patient relationship they enjoy with their physicians. We can tell them the difference between government and private medicine. We can tell them what effect national health insurance would have on their paychecks and their savings and that these programs are not free. We can use again the example of Great Britain.

Perhaps we are fortunate that fiscal reality in Washington has given us some time to breathe and to gather our forces. The lawmakers know our country cannot afford the programs that are being contemplated. They know there is no way the government can administer a national health insurance program without driving medical costs and inflation beyond anything we could possibly survive. But we must each become a kind of lobbyist in our offices, convincing our patients so well as to stimulate an outpouring of determined and well-reasoned argument and opinion.

I am sure that each of us has been encouraged and even delighted to see the American Medical Association take on the Federal Government in the courts and win. I am sure we can do this every time we try, but lawsuits are expensive, and justice is not always speedy; and, worst of all, our opponents use *our* money to finance the fight against us.

We in Nebraska are fortunate in having a congressional delegation which is responsive to the arguments I have tried to make. But they are a small group, and their voices may be lost in the clamor and confusion. We can only try to encourage our colleagues all over the country to work in *their* offices with *their* patients, to try to preserve the practice of medicine and our hard-won freedoms.

Warren G. Bosley, M.D.

The Auxiliary

The Nebraska Health Gallery
A Positive Educational Project

A scale model of the new University of Nebraska State Museum Health Gallery, designed by Richard Rush Studios of Chicago, was unveiled in Lincoln, Nebraska January 9, 1976 for a Steering Committee of Medical, University and Health Education officials and for the members of Nebraska Medical Association Women's Auxiliary. The following day the model of the Health Gallery was showed to the University of Nebraska Board of Regents, by its designer Richard Rush.

The idea for a Health Gallery in Morrill Hall University of Nebraska campus, was launched in 1952. Since that time, a number of exhibits have been added to the small Health Gallery. The new gallery will encompass and expand on the exhibits already on display, and will contain 3,000 square feet of exhibit space. In addition there will be a gallery classroom with 700 square feet.

The gallery's objective is to help the layman learn about and respect health. It will be designed principally to serve the casual museum visitor, visiting elementary and secondary school groups and students in health and other education programs at the University.

Visitors will enter a transition area designed to portray man as a part of natural history. This gallery, through a variety of exhibits and electronic means, will remind that compared to other life on the earth, man is a new creature, has much in common with other animal forms but is different in some very important ways.

The Ceres Theatre, next unit in the gallery, will focus on how all men are alike. A Talking manikin, Ceres, describes and lights up organs and systems and describes the body's inner workings.

Leaving the Ceres Theatre, adaptations are emphasized and even experienced through a system of mirrors, floor variations and other devices which make the visitors aware of such adaptation devices as glasses and crutches, and of the work of the "helping people" in our society who provide medical, surgical and other services.

The viewer next gets an idea of body system — structural, feeding, control and survival — and how they work in a health body.

Finally, the viewer enters a gallery entitled "The Future," where he is reminded of the big questions related to human health and the health of the environment. Here the

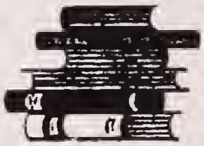
point is made that each individual has a special responsibility for his own health and his own environment.

Throughout the gallery, exhibits encourage actual physical interaction between viewer and exhibit (touch, feel, manipulate, etc.). Periodically the visitor will have an opportunity to assess what he has learned through electronic quiz displays.

The proposed gallery is expected to cost $450,000, and will be financed entirely by donations. The fund raising drive for the Health Gallery will be undertaken by the Nebraska Medical Association Women's Auxiliary. The Auxiliary has taken this fund raising drive on as a three year project.

Judy Waltemath, Peggy Fletcher
Public Relations Committee for
Nebraska Medical Association
Women's Auxiliary

Books



Books reviewed.

Shiatzu; by Yukiko Irwin with James Wagenvoord; 240 pages; $5.95 paper, $9.50 cloth; published 1976 by Lippincott, N.Y.

Yukiko Irwin is a sixth-generation descendant of Benjamin Franklin; she is a graduate of the Nippon Shiatzu School in Tokyo, Tokyo Woman's College, and Indiana University. She has practiced shiatzu, which means finger pressure in Japanese, for 25 years. The Foreword is by M. Dorothea Kerr, M.D., Clinical Assistant Professor of Psychiatry at Cornell University Medical College.

The idea seems to be that the Chinese found 657 points on the body that were affected by certain ailments, and that it was then found, apparently by the Japanese, that finger pressure on the meridian points would gain results similar to those produced by acupuncture without all those needles.

Acupuncture treats ailments, while shiatzu maintains health and well-being, and does overcome many ailments and aches; that is what she says. There are more than 300 line drawings. You can do it to others and they can of course do it to you, and you can even do it to yourself. I tried it, but then I was feeling all right before I began.

—F.C.

Colleges programs for paraprofessionals; New Human Services Institute, Queens College; 135 pages; $9.95 hard cover; published 1975 by Human Sciences Press, New York.

This is a source-book and it contains more than 950 institutions of higher education with degree-granting programs in the human services. It provides information relating to the proliferating number of training programs leading to careers in hospitals and mental health clinics, drug rehabilitation centers, schools, prisons, and community service agencies.

The print is excellent, and listings are well shown. Central Nevada Technical College is listed in Nebraska, which may be an error. The entries are arranged by field of study, state (50 states are included, in addition to Puerto Rico, Virgin Islands, and District of Columbia), and institution; and names, addresses, and telephone numbers and extensions are conveniently supplied.

This should be a help to guidance counselors and career advisors, and to social agencies and educational organizations.

—F.C.

Big Balanced Rock, Chiricahua Mountains, Arizona (approx 1,000 tons)

nd useful in the management of vertigo* associated with es affecting the vestibular system.

relieve nausea and vomiting often associated with vertigo.*

al adult dosage for Antivert/25 for vertigo:* one tablet t.i.d.

available as Antivert (meclizine HCl) 12.5 mg. scored , for dosage convenience and flexibility.

vert/25 (meclizine HCl) 25 mg. *Chewable* Tablets for , vomiting and dizziness associated with motion sickness.

UMMARY OF PRESCRIBING INFORMATION

CATIONS. Based on a review of this drug by the National Academy of es—National Research Council and/or other information, FDA has classified dications as follows:

ctive: Management of nausea and vomiting and dizziness associated with n sickness.

ibly Effective: Management of vertigo associated with diseases affecting the ular system.

l classification of the less than effective indications requires further igation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

ROERIG **Pfizer**
A division of Pfizer Pharmaceuticals
New York, New York 10017

Antivert®/25
(meclizine HCl) 25 mg. Tablets
for vertigo*

DYAZIDE® MAKES SENSE

Each capsule contains 50 mg. of Dyrenium® (triamterene, SK&F) and 25 mg. of hydrochlorothiazide.

Trademark

TRIAMTERENE CONSERVES POTASSIUM WHILE HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE

FOR LONG-TERM CONTROL OF HYPERTENSION*

Serum K+ and BUN should be checked periodically. (See Warnings Section.)

Before prescribing, see complete prescribing information in SK&F literature or *PDR*. The following is a brief summary.

* **Warning**
This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

***Indications:** *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: **Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired.** Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, **check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently**—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

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Between Cases

The Patient.

If we fail, our doctor with his folder full of our case is Mission Control, but we, with high morale, must fly the ship.

Merrifield

Bumper Sticker.

Feeling sick? Call your lawyer.

On Life And Love.

Love is somehow the answer to it all.

George Sterling

The Physical.

There is a question of a healed lesion on the right humeral head, but more specific use for this can be taken if necessary.

Good.

and not a lawyer among them.

Sir Thomas More

Cardiovascular Department.

The blood pressure readings were 130/90 standing, sitting, and supine respectively.

Beautiful.

I rather choose to endure the wounds of those darts which envy casteth at novelty, than to go on safely and sleepily in the easy ways of ancient mistakings.

Raleigh, quoted by Esdaile

The Impression.

Arthritis, with good limitation of motion.

Quote Unquote.

I have lived some thirty years on this planet, and I have yet to hear the first syllable of valuable or even earnest advice from my seniors.

Thoreau

The Diagnosis.

Chest pain-itis.

Department Of Humor, Intentional Or Not.

The concept of the bladder as an inert container of urine no longer holds water.

Lancet 11/8/75:913

One Way To Do It.

He taps her little ribs, listens to his stethoscope, and tells her, tenderly and persuasively, "Time to die."

Sevela: Legends from invalid street.

Section On Venesection.

Osler said that during the first half of the (19th) century the profession bled too much, but during the last half we have certainly bled too little.

Remember?

Don't feel bad, Doc. You did the best you could.

Words We Can Do Without.

Attractivity, operatory, ethos, overabundance, conceptualize.

—F.C.

Our Medical Schools

Grant to Creighton Nursing.

The College of Nursing at Creighton University will soon have a permanent home, according to Sheila Ryan, Acting Dean. A $653,000 grant from the Department of Health, Education, and Welfare will pay approximately 75% of the cost of remodeling an area in the Dr. C. C. and Mabel Criss Basic Sciences Building.

Since designated as a college five years ago, the nursing program has been directed from offices in the University Administration Building. During this period, student enrollment has grown from 177 in 1970 to 354 today.

By January, 1977, the nursing faculty hopes to begin its move into remodeled quarters now occupied by the School of Medicine. Dean Ryan said renovation will begin upon completion of Unit III of the medical center this spring. Unit III will house the Schools of Medicine and Pharmacy.

The schools need bodies.

A special group of Nebraskans are "lending" themselves to a very important need in medicine. They are donating their bodies for purposes of medical education.

The anatomical board needs 110 donors a year to accommodate the state's two medical and dental schools at Creighton University and the University of Nebraska. The donors are used in anatomy courses to educate 263 students in medicine, 15 in the physician's assistant program, 16 in physical therapy, and 139 in dentistry. The donors are also used for medical research purposes by graduate students and doctors.

Over the past few years there have not been enough. The board has annually averaged 53 donors in recent years, which has meant a doubling of the number of students studying a donor and a corresponding reduction in the effectiveness of that part of their medical education.

Most donors interviewed felt that the reason for the lack of response to this critical need was that many people were misinformed about the value of donating their bodies.

Although many people are aware of the beneficial aspects of the donation, some feel that the program may be in conflict with certain religious beliefs.

Dr. Ernest Smith, executive secretary of the Omaha Metropolitan Association of Churches, admitted there is "an abysmal ignorance on the part of the clergy concerning this program." He recommended that individuals consult with their clergyman if they have questions concerning the religious aspects of the donation.

Welcome New Members

O. Garland Bare, M.D.
University Health Center
University of Nebraska — Lincoln
Lincoln, Nebraska 68508

George J. Basque, M.D.
Bergan Mercy Hospital
Omaha, Nebraska 68124

James W. Chapin, M.D.
Department of Anesthesiology
University of Nebraska Medical Center
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Paul Madison, M.D.
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Nebraska 68410

Robert W. Walker, M.D.
Route #3
Norfolk, Nebraska 68701

Paul R. Young, M.D.
Department of Family Practice
University of Nebraska Medical Center
Omaha, Nebraska 68105

Down Memory Lane

1. In our University hospital, still a young institution, we have operated upon forty-three cases of acute internal intestinal obstruction, with seven deaths, a mortality of 16¼ plus %; we have operated upon sixteen cases of acute strangulated hernia, with two deaths, a mortality of 12½%; a total of fifty-nine cases of acute intestinal obstruction with nine deaths, a mortality percentage of 15¼ plus %, an exceptional record and one which will be improved upon when physicians who first see these cases send them to the hospital earlier.

2. It has been a long time since I have drained an abdomen without removing the offending appendix.

3. A high protein diet usually means a high meat diet.

4. The application of business principles to a profession does not constitute commercialism.

5. In searching for foci of infection, it is well to have a formal list of possible foci at hand, and to check them off as they receive attention in turn.

6. The lobar pneumonias we see in rural Nebraska are generally of medium severity and barring complications, we always expect the patient to recover.

7. The Federal Government now treats at the taxpayers' expense persons suffering from disease and injury unrelated to any service rendered the people.

8. The urticaria of infants when of alimentary origin can generally be traced to the ingestion of milk, eggs, or chocolate.

9. Several hundred thousand dollars is to be spent for an additional wing to the Methodist hospital, Omaha, this spring.

10. It is not often that gall-bladder surgery is emergent.

Nebraska State Medical Journal
March, 1926.

WashingtoNotes

HEW Bill.

President Ford's all-out attack against rising government spending sustained a major blow with the Congressional override of his veto of a $45 billion health, welfare, and labor bill.

The vetoed bill called for $1 billion more than the Administration's budget request and required hiring of 8,000 more Health, Education, Welfare Department employees. Almost $800 million of the increase involves health programs which would receive a total of $3.9 billion for the fiscal year that ends September 30.

The bill provides more funds for such programs as Community Menial Health Services, Maternal and Child Health, medical research, Alcoholism and Drug Abuse Facilities, Emergency Medical Services, and education of health professionals.

The HEW money bill is considered the hardest to vote against in Congress because of the multitude of popular programs funded.

Unnecessary surgery & second opinions.

Mandatory second professional opinions have been urged for elective or non-emergency surgery under Medicare and Medicaid by a House Commerce Subcommittee.

The Subcommittee on Investigations and Oversight, which held hearings last fall on unnecessary surgery, charged in a report that there were an estimated 2.4 million unnecessary surgeries performed in 1974 at a cost to the public of almost $4 billion. The procedures led to an estimated 700 deaths, the report said.

Arguments that second opinions would cost money and not necessarily provide a solution, and expert assertions that it is difficult to determine what constitutes unnecessary surgery, were brushed aside by the Subcommittee in its strongly-worded report.

The report said the lawmakers were impressed with evidence "that prepayment plans for consumers and salaried surgeons help reduce surgery in equivocal situations."

"Evidence was compiled in the Subcommittee's investigation that the fee-for-service mechanism of surgical payment encourages surgery in questionable situations," the report said. "An in-depth study of this should be undertaken" by the HEW Department.

The Subcommittee recommended that HEW immediately undertake a study to determine the differences in health indices, costs and the surgical procedure rates between salaried surgeons and fee-for-service surgeons.

Ford & the AMA.

Officials of the AMA met with President Ford and his top health officers to discuss a wide range of health topics including the Administration's new health proposals and federal regulation problems worrying the physicians of the country. The 45-minute meeting in the Cabinet Room at the White House was described by participants as friendly.

Among the subjects discussed were the President's State of the Union and the Budget Health Proposals, government regulations affecting physicians, the Federal Trade Commission move to allow physicians to advertise, costs of medical care, and medical manpower.

President Ford was told that his recommended annual four percent limit on physician reimbursement increases under Medicare poses real problems with the medical profession which must adjust to higher costs of doing business yearly as well as the ever-climbing costs of professional liability insurance.

The AMA delegation told Ford about the AMA National Commission on the Cost of Medical Care and invited the President to appoint a representative of his Administration to serve as a member.

There was considerable talk about the supply of physicians, with President Ford evincing special interest in the Foreign Medical Graduate situation and the problems of Americans studying medicine abroad. The AMA officials described the increasing numbers of young physicians entering primary care, now 58 percent.

The AMA support of the National Health Service Corps as a principal means of helping physician-short areas was outlined. The voluntary incentives in this program were compared with the "indentured service" aspects of health manpower legislation before Congress that would compel young physicians to serve or to payback the government for federal aid received by medical schools.

In reply to a question from Ford, the AMA delegates noted the organization's support of federal medical scholarships. The controversial Utilization Review Regulations were talked about.

President Ford was told that the AMA could find no scientific basis for the disputed Maximum Allowable Cost proposals for Medicare-Medicaid outpatient drugs. The MAC plan could lead to interference in the practice of medicine by restricting the physicians' prescribing scope and could hurt the quality of health care, the AMA officers said.

The FTC suit to overturn the AMA ban on physician advertising will be contested in court; the AMA was founded in part to do away with the abuses of charlatans and advertising of physicians' services, the Chief Executive was told.

I Remember

ON EPIGLOTTITIS

The nurse said they want you up on the sixth floor right away. I took all my things with me and I ran. There was a four year old child on the bed, and two surgeons were, as we say, working on him.

The patient was severely cyanotic, and gasping, and he said Mommy, just once.

They said it was either asthma or foreign body, and they were trying to do tracheotomy in the patient's bed, but would I please try to get a tube into his trachea.

Someone had brought my machine up to the floor for me. I inserted the laryngoscope; I could not see the trachea. There were two very large things that looked like spheres filled with fluid, touching in the midline. I took them for the arytenoids, and I tried to get a tube between and above them, and I could not.

The surgeons said they thought they had got an incision into the trachea, so I connected my gas machine to the tube placed in their incision, but I could not inflate the lungs. And I never intubated the trachea from above, either.

It was epiglottitis, I think now. I have seen a report of a case, years later, and I reported mine. The epiglottis swells, and changes from the thin leaf-like thing we know to something like what I saw. It becomes nearly spherical and is sharply divided into two, because of the raphe in the midline. And what I thought were the arytenoids were the halves of the epiglottis.

The patient was nearly dead when I got there, and he died while we were all working over him. But I still remember what he looked like. And I can even now hear him call for his mother.

—F.C.

The Letter Box

Dear Doctor Cole:

I usually read with interest your editorials in the Journal and believe you would be interested in observations concerning them.

Your criticism of the diagnosis of cardiac arrest as the cause of death reminds me of that problem when doing the necropsies at the University of Nebraska Hospital in the 1920s. I liked to give both an immediate and a primary cause of death to solve that problem.

As you know, you published a paper of mine in the Journal on sudden "unexpected death" that should have been entitled "Sudden Unexplained Death," as many crib deaths are, and Alan Moritz reported a considerable number of similar deaths in young Army men in which no pathology was found to explain the sudden syncope-type death. I believe such cases might well be called primary cardiac arrest.

J. Jay Keegan, M.D.

Dear Dr. Cole:

In the December issue, page 507, under "Words We Can Do Without," you list violaceous as such a term. I take umbrage at your unqualified opinion!

Dermatologists sometimes feel, but more often see, the diseases with which they deal, and therefore descriptive words are essential Violaceous is just such a word for many of the erythemas, urticarias, eczemas, lichen planus, erysipelas, acrodynia, Rickettsia, purpuras, and a host of others.

Medicine would be better served to cast out such clumsy terms as intubation, atelectasis, emphysema, and bronchospasm than to discard violaceous!

Sincerely,
C. D. Bell, M.D.

Coming Meetings

CRIPPLED CHILDREN'S CLINICS —
March 6 — Sidney, Elks Lodge
April 3 — Broken Bow, Elks Lodge

COURSE IN NEUROTOLOGY — March 22 through 25, 1976. The Department of Otolaryngology of the Abraham Lincoln School of Medicine and the University of Illinois Hospital Eye and Ear Infirmary, University of Illinois at the Medical Center, will conduct a continuing education course in Neurotology, March 22 through 25, 1976. The four day intensive course will offer a didactic and practical review of clinical neurotology under the direction of Nicholas Torok, M.D. It will be held at the Eye and Ear Infirmary and will include basic vestibular physiology and pathophysiology, commonly used testing methods applied in functional examination of the vestibular organ. Various forms of caloric testing procedures will be demonstrated using nystagmography, reading and evaluation of the test results, particularly the nystagmogram, and correlation with audiometric and neurologic findings, final neurotological diagnosis, management and treatment. Patients will be tested by participants and the history, symptoms and test results will be discussed in informal conferences. Enrollment is limited to fifteen. For application forms write to the Department of Otolaryngology, 1855 West Taylor Street, Chicago.

NEBRASKA MEDICAL ASSOCIATION — Annual Session, May 2-5, 1976, Holiday Inn, Kearney, Nebraska.

AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 26 - July 1, 1976, Dallas, Texas.

NEBRASKA MEDICAL ASSOCIATION FALL SESSION — September 30 — October 1 & 2, 1976, Lincoln Hilton Hotel, Lincoln, Nebraska.

AMERICAN MEDICAL ASSOCIATION — 30th Clinical Convention, December 4-8, 1976, Philadelphia, Pennsylvania.

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ADVERTISERS' INDEX

A

Accent Service Company, Inc 19

B

Burroughs Wellcome Co. 21

C

Cooper Laboratories, Inc. 5

D

Donley Medical Supply Co. 19

Dow Pharmaceuticals 7, 8, 9, 10

L

Eli Lilly and Company 22

M

Mallinckrodt, Inc. 15

N

Norfolk Printing Company, Inc. 18

P

Pharmaceutical Manufacturers Association 12, 13

R

Roche Laboratories 2, 3, 25, 26

Roerig & Co. 96A

S

Smith Kline & French Laboratories 96B

U

U. S. Army Corps of Engineers, Omaha District 14

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Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.
Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.
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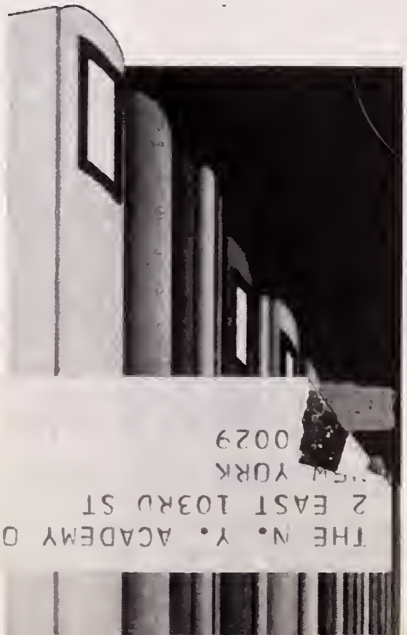

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April, 1976

The Nebraska Medical Journal

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EDITORIALS —

An Editorial Medley ... 103
What Is It? ... 103
Our Friends The Plants ... 104
The Specialist ... 104

ORIGINAL ARTICLES —

Fibrous Disease of the Breast: An Emerging Entity ... 105
John F. Fitzgibbons, M.D.
D. J. O'Leary, M.D.

"Osteosarcoma — A Light in the Gloom" ... 108
John F. Connolly, M.D.
John G. Yost, M.D.

Drugs Used to Manage Hypertension ... 112
Gerald L. Wolfe, M.D., Ph.D.
H. Frederick Dalske, Ph.D.

The Nebraska Survey of Respiratory Therapy ... 115
Thomas P. K. Lim, M.D.

The Gravlee Jet Washer ... 119
Joseph M. Rapoport, M.D.
Charles A. Field, M.D.
Jerry W. Jones, M.D.

Nutrition and Physical Fitness: Food Fads and Quackery, Part II ... 122
Ralph A. Nelson, M.D., Ph.D.

FEATURES —

President's Page ... 125
The Auxiliary ... 127
Books ... 127

BETWEEN CASES ... 128

NEBRASKA —

Our Medical Schools ... 129
Welcome New Members ... 130
State Organizations ... 18A

DOWN MEMORY LANE ... 131

ALL THE STATES —

Medicinews ... 131
WashingtoNotes ... 132
National Organizations ... 10A

I REMEMBER —

How We Listened To Dr. Adler ... 135

AROUND THE WORLD —

The Letter Box ... 135
Coming Meetings ... 136

PROGRAM —

108th Annual Session of the Nebraska Medical Association ... 137
51st Annual Session of the Woman's Auxiliary ... 148

Address all correspondence relating to subscriptions, advertising or address changes to Mr. Ken Neff, Business Manager, 1902 First National Bank Building, Lincoln, Nebraska 68508 Phone: [402] 432-7585.

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ON PAGES 137 TO 150

WHEN 'CHILD' MUST FEED CHILD . . .

A mother-to-be who is still in her teens must nourish two developing children: herself and her child! If her diet habits remain typically 'teen' she will be ill-equipped to meet the combined nutritional demands of pregnancy and adolescence.

Every third pregnancy in the United States in 1974 involved teenage mothers (15-19 years of age) — totalling more than 750,000 babies.

Many surveys indicate teenage girls to be the most poorly nourished group in American society. When one of these girls becomes pregnant, she is more apt to be ill-equipped to meet the combined nutritional burdens of pregnancy, lactation and adolescence.

Effective nutritional protection against pregnancy wastage, infant mortality and pre- and postnatal depletion in teenage mothers should begin before conception and should continue throughout the child-bearing period. During pregnancy, fetal demands are preferential and progressive. Essential nutrients not supplied by the diet or body stores are drained from maternal tissues to the detriment of the mother.

During lactation, the maternal requirements for calories, proteins, minerals, and vitamins greatly increases. The lactating mother supplies a 4-week old infant with an estimated 7.4 gm. protein, 58 gm. lactose, 200 mg. calcium, .4 mg. iron, and 37 mg. ascorbic acid daily.

A well-balanced varied diet, which simultaneously satisfies the needs of pregnancy and adolescence offers the best nutritional assurance for a healthy teenage mother and child. Basic to this diet is a milk quota of at least 3 or more 8-ounce glasses a day during pregnancy and 4 or more 8-ounce glasses a day during lactation, or their equivalent in other dairy products.

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More than 100 theological students and ministers have taken at least one-quarter of Clinical Training in the year-round program Chaplain Anderson conducts at Immanuel Medical Center in Omaha, where he's been Director of Chaplaincy Services since 1965.

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Manuscripts to be presented for publication in the JOURNAL should be typewritten, double-spaced, on one side only of firm (not onion skin or flimsy), standard letter size (8½ by 11 in.) white paper. Wide margins (at least 1¼ in. on left) should be left free of typing. On the first or title-page should be shown the title of the article, the name (or names) of the author, his degree and other significant credits. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

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Letters to the Editor submitted for publication should be prepared as above, and must carry the notation: To be Published.

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NEOSPORIN® Ointment
(polymyxin B-bacitracin-neomycin)
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Provides overlapping, broad-spectrum antibacterial action to help combat infection caused by common susceptible pathogens (including staph and strep).

Each gram contains Aerosporin* brand Polymyxin B Sulfate 5.000 units. zinc bacitracin 400 units, neomycin sulfate 5 mg (equivalent to 3 5 mg neomycin base): special white petrolatum qs in tubes of 1 oz and 1/2 oz and 1/32 oz (approx) foil packets.

INDICATIONS: Therapeutically (as an adjunct to systemic therapy when indicated) for topical infections. primary or secondary, due to susceptible organisms, as in: • infected burns. skin grafts. surgical incisions. otitis externa • primary pyodermas (impetigo. ecthyma. sycosis vulgaris. paronychia) • secondarily infected dermatoses (eczema. herpes. and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection.

Prophylactically. the ointment may be used to prevent bacterial contamination in burns, skin grafts. incisions. and other clean lesions. For abrasions. minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing **CONTRAINDICATIONS:** Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components **WARNING:** Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin. care should be exercised when using this product in treating extensive burns. trophic ulceration and other extensive conditions where absorption of neomycin is possible In burns where more than 20 percent of the body surface is affected. especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently. not more than one application a day is recommended **PRECAUTIONS:** As with other antibacterial preparations. prolonged use may result in overgrowth of nonsusceptible organisms. including fungi Appropriate measures should be taken if this occurs. **ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section)

Complete literature available on request from Professional Services Dept PML

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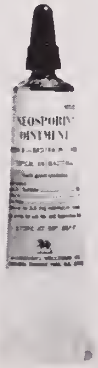

Symposium on Pediatric Problems
- - - *or Kid Stuff*

Plan to attend, 9:30 a.m. - noon, Tues., May 4,
during the NMA's 108th Annual Session
Moderated by Kenton L. Shaffer, M.D., Kearney

Bones — Bent Not Broken,
with Richard D. Smith, M.D., Omaha
Orthopedic Surgery

Common Dermatology Problems in Children,
with Joan F. Till, M.D., Lincoln
Dermatology

The Little Bellyacher,
with Arnold Silverman, M.D., Denver
Clinical Professor of Pediatrics, Univ. of Colorado Medical Ctr.

Pediatric Surgical Problems:
Why & When to Operate,
with William Carl Bailey, M.D., Denver
Interim Chief of Surgery at Children's Hospital

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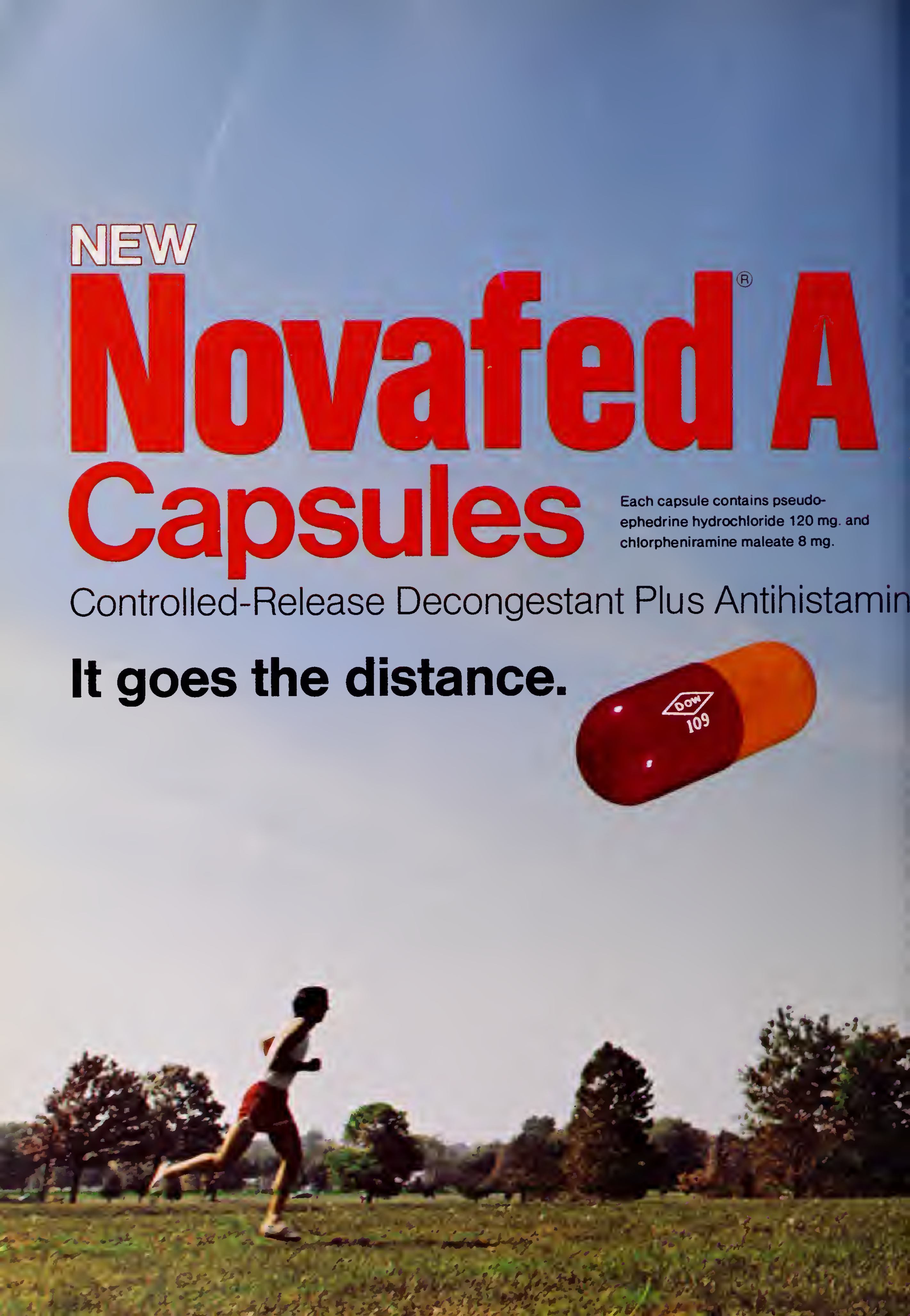

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Novafed® A

Capsules

Each capsule contains pseudoephedrine hydrochloride 120 mg. and chlorpheniramine maleate 8 mg.

Controlled-Release Decongestant Plus Antihistamin

It goes the distance.

Clinical studies confirm full 12-hour effectiveness.

For years, patients have heard of drugs providing long-lasting relief. But after six or eight hours, they often run out of relief. And it's too soon to take the next dose.

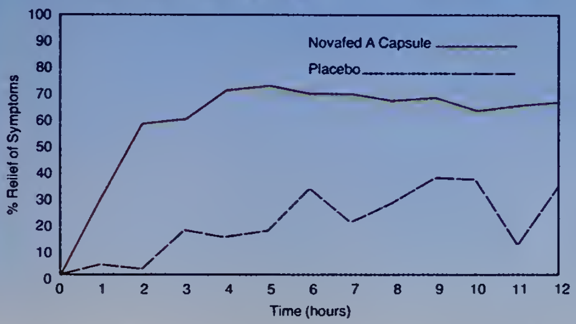
Now, with Novafed A, Dow introduces a prescription capsule with 12-hour effectiveness in relieving allergy and hay fever symptoms. Placebo-controlled clinical studies show that the high level of decongestant in Novafed A provides relief for as long as 12 hours. At the same time, its antihistamine relieves the patient's itchy eyes and runny nose *without* the excessive dryness of anticholinergic agents.

Prompt onset of effect is followed by full 12-hour relief.

(Please refer to the following page for bioavailability studies and prescribing information.)

Patients with severe pollen allergies were tested during hay fever season in a countryside environment and asked to rate severity of five different symptoms on a scale of 1 to 4.

Clinical Study: Degree of Relief from Itchy Eyes and Nose and Throat, Watery Eyes, Runny Nose*



*Unpublished data, Medical Department Files, Dow Pharmaceuticals, The Dow Chemical Company, Indianapolis, Indiana.

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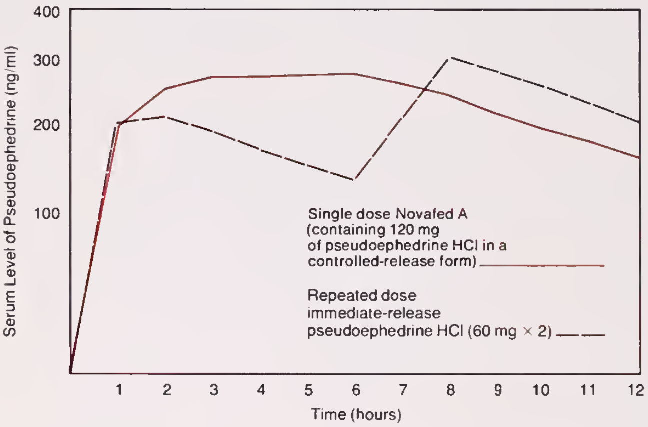
Prompt onset and sustained serum levels over 12 hours.

A bioavailability study confirmed that the sustained 12-hour action of Novafed A was comparable to that of immediate-release medication taken at 6-hour intervals.

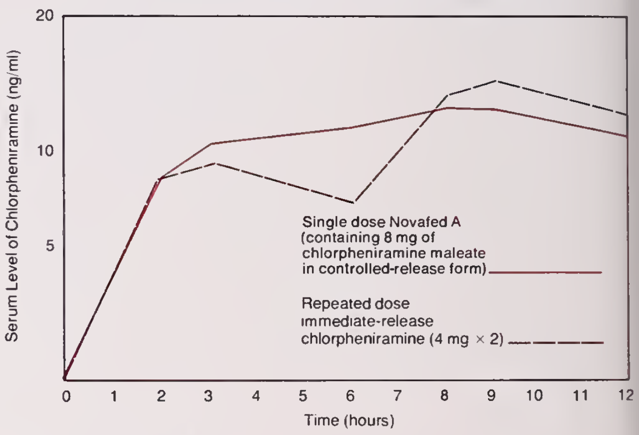
The chart at the left shows the serum levels of pseudoephedrine. Initial serum levels following one Novafed A Capsule were comparable to those following a single dose of 60 mg. pseudoephedrine hydrochloride in an immediate-release form. Serum levels of pseudoephedrine over a 12-hour period following a single dose of Novafed A were also comparable to those obtained by an immediate-release form taken every 6 hours.

The chart at the right shows the serum levels of chlorpheniramine. Initial serum levels following one Novafed A Capsule were comparable to those following a single dose of 4 mg. chlorpheniramine maleate in an immediate-release form. Serum levels of chlorpheniramine over a 12-hour period following a single dose of Novafed A were also comparable to those obtained by an immediate-release form taken every 6 hours.

Comparison of Mean Serum Levels of Pseudoephedrine Following Novafed A and an Immediate-Release Reference Formulation*



Comparison of Mean Serum Levels of Chlorpheniramine Following Novafed A and an Immediate-Release Reference Formulation*



*Unpublished data, Medical Department Files, Dow Pharmaceuticals, The Dow Chemical Company, Indianapolis, Indiana.

DESCRIPTION: Each NOVAFED A capsule contains 120 mg. of pseudoephedrine hydrochloride and 8 mg. of chlorpheniramine maleate. The specially formulated pellets in each capsule are designed to provide continuous therapeutic effect for about 12 hours. Nearly one-half of the active ingredients is released soon after administration and the remainder is released slowly over the remaining time period.

ACTIONS: NOVAFED A combines the action of a nasal decongestant, pseudoephedrine hydrochloride, and an antihistamine, chlorpheniramine maleate. These ingredients are combined to provide prompt and sustained nasal and upper respiratory decongestant and antihistaminic action.

INDICATIONS: NOVAFED A is indicated for the relief of nasal congestion and eustachian tube congestion associated with the common cold, sinusitis and acute upper respiratory infections. It is also indicated for perennial and seasonal allergic rhinitis, vasomotor rhinitis, allergic conjunctivitis due to inhalant allergens and foods and for mild, uncomplicated allergic skin manifestations of urticaria and angioedema. Decongestants in combination with antihistamines have been used for many years to relieve eustachian tube congestion associated with acute eustachian salpingitis, aerotitis media, acute otitis media and serous otitis media. NOVAFED A may be given concurrently, when indicated, with analgesics and antibiotics.

CONTRAINDICATIONS: Symphathomimetic amines are contraindicated in patients with severe hypertension, severe coronary artery disease, and in patients on MAO inhibitor therapy. Antihistamines are contraindicated in patients with narrow-angle glaucoma, urinary retention, peptic ulcer, during an asthmatic attack, and in patients receiving MAO inhibitors.

Children under 12: NOVAFED A controlled-release capsules should not be used in children less than 12 years of age.

Nursing Mothers: Pseudoephedrine is contraindicated in nursing mothers because of the higher than usual risk for infants from sympathomimetic amines.

Hypersensitivity: This drug is contraindicated in patients with hypersensitivity or idiosyncrasy to sympathomimetic amines or antihistamines. Patient idiosyncrasy to adrenergic agents may be manifested by insomnia, dizziness, weakness, tremor or arrhythmias.

WARNINGS: Sympathomimetic amines should be used judiciously and sparingly in patients with hypertension, diabetes mellitus, ischemic heart disease, increased intraocular pressure, hyperthyroidism, or prostatic hypertrophy. Sympathomimetics may produce central nervous system stimulation and convulsions or cardiovascular collapse with accompanying hypotension.

Antihistamines may impair mental and physical abilities required for the performance of potentially hazardous tasks, such as driving a vehicle or operating machinery, and mental alertness in children. Chlorpheniramine maleate has an atropine-like action and should be used with caution in patients with increased intraocular pressure, hyperthyroidism, cardiovascular disease, hypertension or in patients with a history of bronchial asthma.

Do not exceed recommended dosage.

Use in Pregnancy: The safety of pseudoephedrine for use during pregnancy has not been established.

Use in Elderly: The elderly (60 years and older) are more likely to have adverse reaction to sympathomimetics. Overdosage of sympathomimetics in this age group may cause hallucinations, convulsions, CNS depression, and death. Therefore, safe use of a short-acting sympathomimetic should be demonstrated in the individual elderly patient before considering the use of a sustained-action formulation.

PRECAUTIONS: This drug should be used with caution in patients with diabetes, hypertension, cardiovascular disease and hyperreactivity to ephedrine. The antihistaminic may cause drowsiness and ambulatory patients who operate machinery or motor vehicles should be cautioned accordingly.

ADVERSE REACTIONS: Hyperreactive individuals may display ephedrine-like reactions such as tachycardia, palpitations, headache, dizziness, or nausea. Patients sensitive to antihistamines may experience mild sedation.

Sympathomimetic drugs have been associated with certain untoward reactions including fear, anxiety, tenseness, restlessness, tremor, weakness, pallor, respiratory difficulty, dysuria, insomnia, hallucinations, convulsions, CNS depression, arrhythmias, and cardiovascular collapse with hypotension.

Possible side effects of antihistamines are drowsiness, restlessness, dizziness, weakness, dry mouth, anorexia, nausea, headache and nervousness, blurring of vision, heartburn, dysuria and very rarely, dermatitis.

DRUG INTERACTIONS: MAO inhibitors and beta adrenergic blockers increase the effect of sympathomimetics. Sympathomimetics may reduce the antihypertensive effects of methyldopa, mecamylamine, reserpine and veratrum alkaloids. Concomitant use of antihistamines with alcohol, tricyclic antidepressants, barbiturates and other central nervous system depressants may have an additive effect.

DOSAGE AND ADMINISTRATION: One capsule every 12 hours. Do not give to children under 12 years of age.

CAUTION: Federal law prohibits dispensing without prescription.

HOW SUPPLIED: NOVAFED A is supplied in red and orange colored hard gelatin capsules, monogrammed with the Dow diamond followed by the number 109, in bottles of 100.

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Specialists in cough and cold care

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Lectures and group discussions on the general background and context of moral decision-making and specific problems in medical ethics e.g. death and dying, organ transplantation, allocation of scarce medical resources, human experimentation, etc. Course to be conducted by Russell Palmer, Ph.D., Professor of Philosophy and Religion and Director of the Humanities Program, UNO.

Registration through the Registrar's Office, College of Medicine. For further information contact Dr. Walter Friedlander, Center for Humanities and Medicine, Room 8000A Wittson Hall, Ext. 7882.

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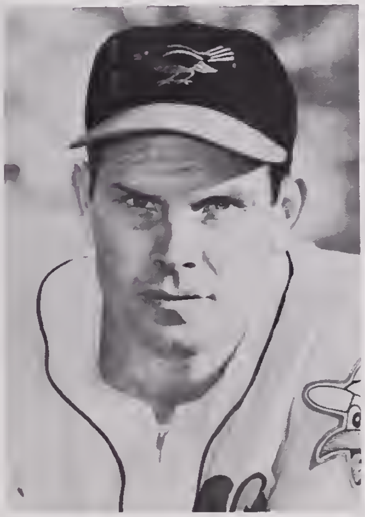
A member of the Baseball Hall of Fame discusses 'Baseball and Kids'



ROBIN ROBERTS

Robin Roberts, Major League Baseball pitcher and newly-elected member of the Baseball Hall of Fame, will be one of the highlight speakers at your Annual Session. Plan now to attend. Mr. Roberts has played for the Philadelphia Phillies, Baltimore Orioles, Houston Astros and Chicago Cubs. He won 286 Major League games. Currently, Vice-President for the Investment Management Division of Lehman Brothers in New York City, Mr. Roberts lives with his wife and family of four sons in Fort Washington, Pennsylvania.

Attend the NMA Annual Session, May 2-5

Testing in Humans: Who, Where & When.

the weight of ethical opinion:

Few would disagree that the effectiveness and safety of any therapeutic agent or device must be determined through clinical research.

But now the *practice* of clinical research is under appraisal by Congress, the press and the general public. Who shall administer it? On whom are the products to be tested? Under what circumstances? And how shall results be evaluated and utilized?

The Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions which it submitted on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, as its official policy recommendations. Here are the essentials of PMA's current thinking in this vital area.

1. PMA supports the mandate and mission of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research and offers to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its service to the Commission.

2. PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact upon it of existing laws, regulations and procedures.

3. When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on drug and device innovation.

4. PMA proposes that an appropriately qualified medical organization be encouraged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent clinical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct nontherapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.

P·M·A

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1155 Fifteenth Street, N.W.
Washington, D. C. 20005

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Look at all the Continuing Medical Education opportunities the AMA has planned for you in 1976!

More and more physicians are interested in updating their medical skills and knowledge in the interest of better patient care. And, an ever-increasing number of state medical associations, specialty societies, and other medical groups are stipulating continuing medical education as a membership requirement.

In response to these developments, the AMA has greatly expanded its C.M.E. programs.

The nine regional meetings, multidisciplinary in approach, are of interest to a variety of medical specialists and physicians in primary care. Scheduled on weekends, they make it easier and more convenient for you to continue your education. Then there are the two AMA conventions. The Annual *alone* features 53 postgraduate courses, 41 3-hour symposia, the new telecourses and many, many other features in continuing education.

All courses at regionals and conventions are accredited on a hour-for-hour basis in Category I.

The AMA's Physician's Recognition Award fulfills C.M.E. requirements of many organizations, state laws and individual physicians.

REGIONAL C.M.E. MEETINGS

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April 3, 4	Detroit, Mich.
May 9	Dallas, Tex.
Sept. 4, 5	Jackson Hole, Wyo.
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Sept. 10-12	Portsmouth, N.H.

125th ANNUAL CONVENTION

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WHEN DIET ALONE FAILS TO LOWER CHOLESTEROL

CONSIDER
Choloxin®
(Sodium Dextrothyroxine)

A Proven Cholesterol-Lowering Adjunct to Diet.

An effective agent for low density lipoproteins in Euthyroid, Non-Cardiac Patients.

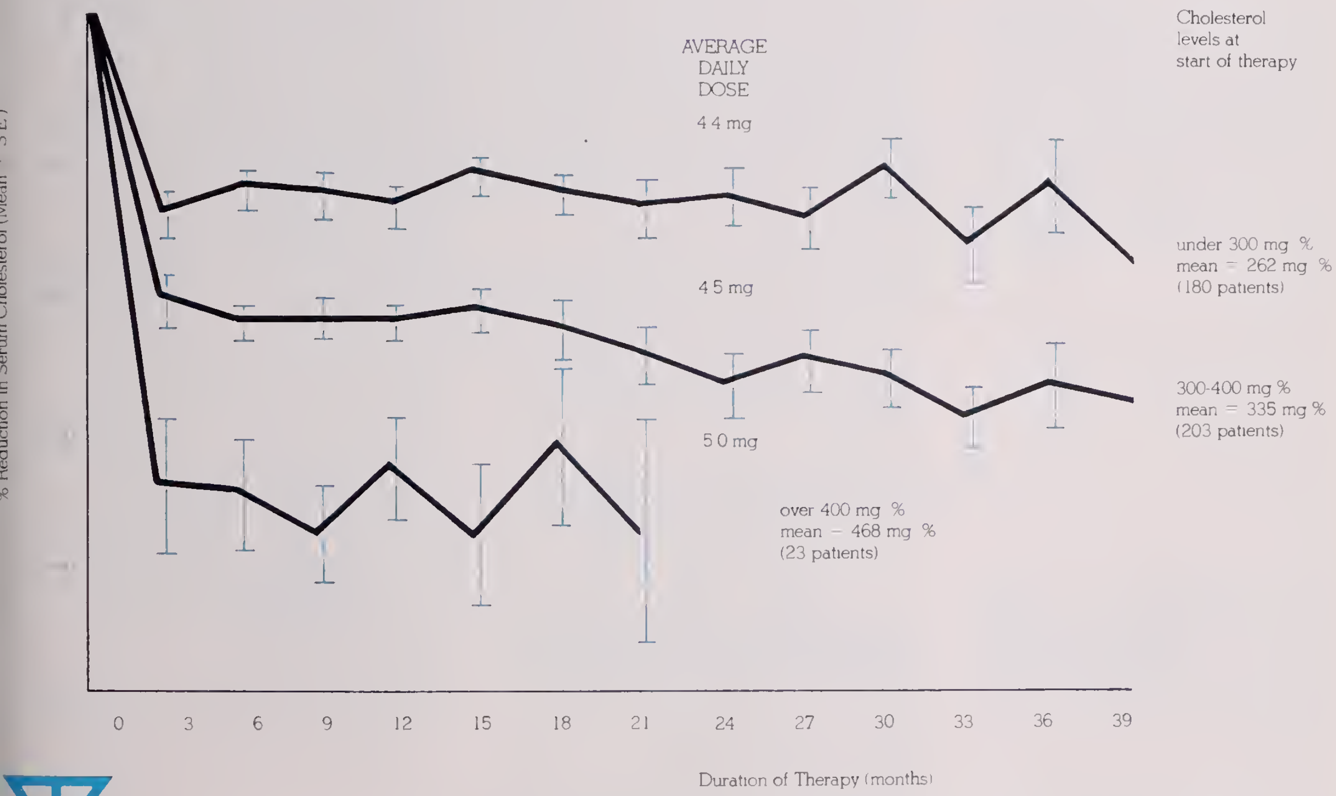
CHOLOXIN® (Sodium Dextrothyroxine) is the convenient and practical way to manage the hard-to-manage patient who doesn't always follow the diet regimen that you've outlined.

Convenient once-a-day dosage encourages patient cooperation, and it's economical for long-term herapy.

AN IMPORTANT NOTE:
It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.

CHOLOXIN (Sodium Dextrothyroxine) is a thyroid analogue which effectively lowers elevated serum cholesterol 15 to 35% (see chart below) in low density lipoproteins.

CHOLOXIN (Sodium Dextrothyroxine) has undergone ten years of clinical trials and seven years of practice. The clinical trials consisted of 337 clinical studies involving over 3,000 hypercholesterolemic non-cardiac patients. It is among the most thoroughly evaluated drugs ever presented to physicians.



NOT ALL PATIENTS ARE REPRESENTED AT EACH TIME INTERVAL

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NOTE:
See following page for full prescribing information.

Choloxin

(Sodium Dextrothyroxine)

Effectively Lowers Elevated Cholesterol With Convenient Once-A-Day Dosage

Four strengths 1. 2. 4. and 6 mg are available making the scored tablet regimen a flexible dosage system. And, for most patients, CHOLOXIN tablets offer once-a-day dosage

CHOLOXIN® (sodium dextrothyroxine) Single-Tablet-A-Day Dosage Schedules

See prescribing information in package insert reproduced below

	Starting Dosage	Increased Monthly by	Usual Maintenance	Maximal Recommended
Adult Hypercholesterolemic	1.0-2.0 mg	1.0-2.0 mg	4.0-8.0 mg	4.0-8.0 mg
Pediatric Hypercholesterolemic	0.05 mg/kg body weight	0.05 mg/kg	0.1 mg/kg body weight	4.0 mg
Hypothyroid Cardiac	0.5-1.0 mg	1.0 mg	4.0 mg	4.0 mg

Description

CHOLOXIN (sodium dextrothyroxine) is the sodium salt of the dextrorotatory isomer of thyroxine It is chemically described as D-3 5 3' 5 tetraiodothyronine sodium salt

Actions

The predominant effect of CHOLOXIN (sodium dextrothyroxine) is the reduction of serum cholesterol levels in hyperlipidemic patients Beta lipoprotein and triglyceride fractions may also be reduced from previously elevated levels

Most of the available evidence indicates that CHOLOXIN stimulates the liver to increase catabolism and excretion of cholesterol and its degradation products via the biliary route into the feces Cholesterol synthesis is not inhibited and abnormal metabolic end products do not accumulate in the blood

Indications

This is not an innocuous drug Strict attention should be paid to the indications and contraindications

CHOLOXIN (sodium dextrothyroxine) is an antilipidemic agent used as an adjunct to diet and other measures for the reduction of elevated serum cholesterol (low density lipoproteins) in euthyroid patients with no known evidence of organic heart disease

The drug is also indicated in the treatment of hypothyroidism in patients with cardiac disease who cannot tolerate other types of thyroid medication **Before prescribing, note the following Results from a randomized clinical study have indicated a possible adverse effect when CHOLOXIN (sodium dextrothyroxine) is administered to a patient receiving a digitalis preparation There may be an additive effect This additive effect may possibly stimulate the myocardium excessively in patients with significant myocardial impairment CHOLOXIN (sodium dextrothyroxine) dosage should not exceed 4 mg per day when the patient is receiving a digitalis preparation concomitantly Careful monitoring of the total effect of both drugs is important**

It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease Several years will be required before current investigations will yield an answer to this question.

Contraindications

The administration of CHOLOXIN (sodium dextrothyroxine) to euthyroid patients with one or more of the following conditions is contraindicated

1 Known organic heart disease including angina pectoris history of myocardial infarction cardiac arrhythmia or tachycardia either active or in patients with demonstrated propensity for arrhythmias rheumatic heart disease history of congestive heart failure and decompensated or borderline compensated cardiac status
2 Hypertensive states (other than mild labile systolic hypertension)
3 Advanced liver or kidney disease
4 Pregnancy
5 Nursing mothers
6 History of iodism

Warnings

CHOLOXIN (sodium dextrothyroxine) may potentiate the effects of anticoagulants on prothrombin time Reductions of anticoagulant dosage by as much as 30% have been required in some patients. Consequently, the dosage of anticoagulants should be reduced by one-third upon initiation of CHOLOXIN (sodium dextrothyroxine) therapy and the dosage subsequently readjusted on the basis of prothrombin time. The prothrombin time of patients receiving anticoagulant therapy concomitantly with CHOLOXIN (sodium dextrothyroxine) therapy should be observed as frequently as necessary, but at least weekly, during the first few weeks of treatment

In the surgical patient it is wise to consider withdrawal of the drug two weeks prior to surgery if the use of anticoagulants during surgery is contemplated

When CHOLOXIN (sodium dextrothyroxine) is used as thyroid replacement therapy in hypothyroid patients with concomitant coronary artery disease (especially those with a history of angina pectoris or myocardial infarction) or other cardiac disease treatment should be initiated with care Special consideration of the dosage schedule of CHOLOXIN (sodium dextrothyroxine) is required This drug may increase the oxygen requirements of the myocardium especially at high dosage levels Treated subjects with coronary artery disease must be seen at frequent intervals If aggravation of angina or increased myocardial ischemia cardiac failure or clinically significant arrhythmia develops during the treatment of hypothyroid patients the dosage should be reduced or the drug discontinued

Special consideration must be given to the dosage of other thyroid medications used concomitantly with CHOLOXIN (sodium dextrothyroxine) As with all thyroactive drugs hypothyroid patients are more sensitive to a given dose of CHOLOXIN (sodium dextrothyroxine) than euthyroid patients

Epinephrine injection in patients with coronary artery disease may precipitate an episode of coronary insufficiency This condition may be enhanced in patients receiving thyroid analogues These phenomena should be kept in mind when catecholamine injections are required in sodium dextrothyroxine-treated patients with coronary artery disease

Since the possibility of precipitating cardiac arrhythmias during surgery may be greater in patients treated with thyroid hormones it may be wise to discontinue CHOLOXIN (sodium dextrothyroxine) in euthyroid patients at least two weeks prior to an elective operation During emergency surgery in euthyroid patients and in surgery in hypothyroid patients in whom it may not be advisable or possible to withdraw therapy the patients should be carefully observed

There are reports that sodium dextrothyroxine in diabetic patients is capable of increasing blood sugar levels with a resultant increase in requirements of insulin or oral hypoglycemic agents Special attention should be paid to parameters necessary for good control of the diabetic state in dextrothyroxine-treated subjects and to dosage requirements of insulin or other antidiabetic drugs If sodium dextrothyroxine is later withdrawn from patients who required an increase of insulin (or oral hypoglycemic agents) dosage during its administration the dosage of antidiabetic drugs should be reduced and adjusted to maintain good control of the diabetic state

When either or both impaired liver or kidney function are present the advantages of CHOLOXIN (sodium dextrothyroxine) therapy must be weighed against the possibility of deleterious results

Usage in Women of Childbearing Age

Women of childbearing age with familial hypercholesterolemia or hyperlipemia should not be deprived of the use of this drug it can be given to those patients exercising strict birth control procedures Since pregnancy may occur despite the use of birth control procedures administration of CHOLOXIN (sodium dextrothyroxine) to women of this age group should be undertaken only after weighing the possible risk to the fetus against the possible benefits to the mother Teratogenic studies in two animal species have resulted in no abnormalities in the offspring

Precautions

It is expected that patients on dextrothyroxine therapy will show greatly increased serum protein bound iodine levels These increased serum PBI values are evidence of absorption and transport of the drug and should NOT be interpreted as evidence of hypermetabolism similarly they may not be used for titrating the effective dose of CHOLOXIN (sodium dextrothyroxine) PBI values in the range of 10 to 25 mcg% in treated patients are common

If signs or symptoms of iodism develop during CHOLOXIN (sodium dextrothyroxine) therapy the drug should be discontinued

A few children with familial hypercholesterolemia have been treated with CHOLOXIN (sodium dextrothyroxine) for periods of one year or longer with no adverse effects on growth However it is recommended that the drug be continued in patients in this age group only if a significant serum cholesterol lowering effect is observed

Adverse Reactions

The side effects attributed to dextrothyroxine therapy are for the most part due to increased metabolism and may be minimized by following the recommended dosage schedule Adverse effects are least commonly seen in euthyroid patients with no signs or symptoms of organic heart disease the incidence of adverse effects is increased in hypothyroid patients and is highest in those patients with organic heart disease superimposed on the hypothyroid state

In the absence of known organic heart disease some cardiac changes may be precipitated during sodium dextrothyroxine therapy In addition to angina pectoris arrhythmia consisting of extrasystoles ectopic beats or supraventricular tachycardia ECG evidence of ischemic myocardial changes and increase in heart size have been observed Myocardial infarctions both fatal and non fatal have occurred but these are not unexpected in untreated patients in the age groups studied It is not known whether any of these infarcts were drug related

Changes in clinical status that may be related to the metabolic action of the drug include the development of insomnia nervousness palpitations tremors loss of weight lid lag sweating flushing hyperthermia hair loss diuresis and menstrual irregularities Gastrointestinal complaints during therapy have included dyspepsia nausea and vomiting constipation diarrhea and decrease in appetite

Other side effects reported to be associated with CHOLOXIN (sodium dextrothyroxine) therapy include the development of headache changes in libido (increase or decrease) hoarseness tinnitus dizziness peripheral edema malaise tiredness visual disturbances psychic changes paresthesia muscle pain and various bizarre subjective complaints Skin rashes including a few which appeared to be due to iodism and itching have been attributed to dextrothyroxine by some investigators Gallstones have been discovered in occasional dextrothyroxine-treated patients and cholestatic jaundice has occurred in one patient although its relationship to CHOLOXIN (sodium dextrothyroxine) therapy was not established

In several instances the previously existing conditions of the patient appeared to continue or progress during the administration of CHOLOXIN (sodium dextrothyroxine), a worsening of peripheral vascular disease sensorium exophthalmos and retinopathy have been reported

CHOLOXIN (sodium dextrothyroxine) potentiates the effects of anticoagulants such as warfarin or Dicumarol on prothrombin time thus indicating a decrease in the dosage requirements of the anticoagulants On the other hand dosage requirements of antidiabetic drugs have been reported to be increased during dextrothyroxine therapy (see WARNINGS section)

Dosage and Administration

For **adult** euthyroid hypercholesterolemic patients the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is 4 to 8 mg per day The initial daily dose should be 1 to 2 mg to be increased in 1 to 2 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily if that dosage level is indicated to effect the desired lowering of serum cholesterol

When used as partial or complete substitution therapy for levothyroxine in hypothyroid patients with cardiac disease who cannot tolerate other types of thyroid medication the initial daily dose should be 1 mg to be increased in 1 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily preferably the lower dosage The maximum in patients receiving digitalis therapy is 4 mg

For **pediatric** hypercholesterolemic patients the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is approximately 0.1 mg (100 mcg) per kilogram The initial daily dosage should be approximately 0.05 mg (50 mcg) per kilogram to be increased in up to 0.05 mg (50 mcg) per kilogram increments at monthly intervals The recommended maximal dose is 4 mg daily if that dosage is indicated to effect the desired lowering of serum cholesterol

If new signs or symptoms of cardiac disease develop during the treatment period the drug should be withdrawn

How Supplied

CHOLOXIN (sodium dextrothyroxine) is supplied in prescription packages of scored 1 2 4 and 6 mg tablets

March 1975

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OF THE

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MONDAY — MAY 3

HOUSE OF DELEGATES
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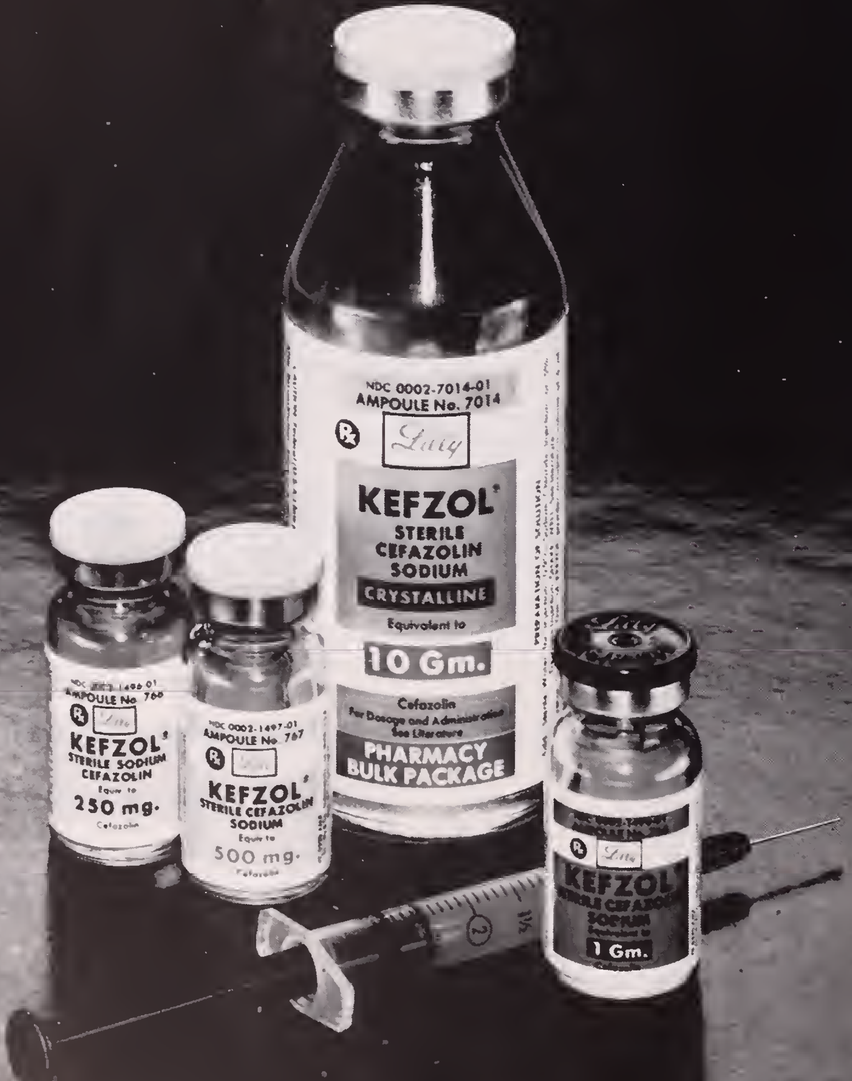

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THE NEBRASKA MEDICAL JOURNAL

AN EDITORIAL MEDLEY

1. They are alive and well as far as we know.

Patients who are lost sight of in a study are lost for the purposes of the survey; they are *not* alive and well as far as you know.

Worse yet, they are more likely to be dead than alive. That is, a patient who *cannot* be found is more probably dead than one who *can* be found. To put it bluntly, patients you don't see anymore are more apt to be dead than the ones you do see.

2. Retiring doctors.

Physicians are leaving medicine 10 to 20 years earlier than in the past, because of paperwork, red tape, government regulations, and particularly because of the constant threat of malpractice litigation and the high cost of malpractice insurance.

This will make for fewer practicing physicians in the 55 to 70 age group, and for a gap in medical manpower.

3. I don't believe it.

They don't turn up the volume on television commercials.

The check's in the mail.

I was just going to call you.

I never got your bill.

I tried to get you, but you're hard to find.

He wouldn't give his name.

He'll call you back.

4. Essay on abbreviations.

PO stands for postoperative, but it also looks like preoperative. It reminds me of the lady who cut the letters TA on her pie crusts for 'tis apple, and then carved TA for 'taint apple.

5. Some day.

Some day we will know the perfect answer to every move, and there will be no more chess.

And some day we will know the perfect remedy for every symptom, and there will be no more medicine.

6. On body language.

I saw a tiger pacing forth and back, and I watched a football game, and the losing coach was pacing, too. The tiger was therefore depressed.

7. What's left and what's right.

I am tired of reading that so-and-so is in the middle of the picture, and you-know-who is to his immediate left. Because so-and-so is facing you, and what is *his left* is *your right*. So unless you-know-who is wearing a name tag, you do not know where he is.

Why O why can't they identify people in pictures clearly so you can understand them? There are so many ways. You have only to write something like to the right of so-and-so *as it appears in the picture*, or fourth from the left. You could say *on his left, but on the reader's right*, but that sounds confusing.

To his immediate right is meaningless; anything is better than that. I think *third from the left* is as good as you can get, and I see no reason to count from a central personage at all. Just say *third from the left*.

8. On house calls.

When the doctor says go to the hospital, he makes a house call to a better house, that's all.

He still has to get dressed and go out and drive to the hospital.

—F.C.

WHAT IS IT?

What can be entirely removed without threatening life?

The tonsils, the appendix, the prepuce, the teeth, the spleen, the eyes, the prostate, the adenoids, and the uterus.

What has no function?

The prepuce, the appendix, and the adenoids.

What can cause death?

The gallbladder, the appendix, the stomach.

What has no function, can be entirely removed, and can cause death?

The appendix.

—F.C.

OUR FRIENDS THE PLANTS

Those of us who are animals survive through the deadly feast of life, that is, we get by by eating each other; and of course we eat plants, too. But aside from the Venus flytrap and a cobra-like plant I nearly bought once, plants don't eat people and I don't think they eat each other. Plants are nice things and they are smart. They know how to make their own food, and we don't.

They do one other nice thing for us, they make oxygen and I think they take away carbon dioxide. We are lucky to have them around, and we couldn't live without them. I don't know if they could get by without us.

Of course, you can live by just eating plants, and some of us do, but eating other animals is more fun, I guess.

There are three other things about plants. First, there are bacteria and viruses, which are very little things and may be plants; and I know they aren't exactly friendly, and some of them aren't even friendly to other plants, like trees. Speaking of trees, we use them for building things, and for burning in stoves and fireplaces. And of course, there is fossil fuel, which comes from plants, and that's how we get coal and oil, and maybe natural gas. And they give us cotton for our clothes.

Do trees get cancer, I wonder? That's the second thing.

And the third is, trees hibernate, like bears. They go to sleep in the winter, and except for their deciduous relatives, they shed their leaves. Leaves are the food-making machines, so they must lower their metabolic rate and use less food when it gets cold.

I'm in favor of plants. They're nice people. We eat them and they don't eat us. They're pretty, and we lop their heads off and bring them inside to die when we want beauty in our homes. They make oxygen and get rid of our waste CO2 for us. And they give us fuel. They used to give us shade, too, but that was long ago.

—F.C.

THE SPECIALIST

It may once have been a mark of distinction to be a specialist, aside from Mr. Sale's classical monograph, but today we are all specialists; you can always specialize in not specializing, of course. So we specialize in treating systems, like musculoskeletal; areas, like head and neck, or the chest; and techniques, as physical therapy, internal medicine, and surgery.

But specialization has given way to minispecializing of one or two sorts. Some of us specialize in one disease, as diabetes, cancer, arthritis, and syphilis.

And there are physicians who specialize in only one organ, as the heart (cardiology), the kidney (nephrology), the lung (pulmonology or pneumatology), the ear (otology), the eye (ophthalmology), the skin (dermatology), and the brain (psychiatry).

There is the anesthesiologist who doesn't treat anything, except for infrequent nerve blocks; the pathologist, whose patients, aside from biopsies, are dead when he gets there, the physician-administrator who, like the conductor of the orchestra, treats everything; and the editor, who takes care of the whole country, or (tomorrow) the world. As they say on television (and I wish they would stop) we thought you'd like to know.

—F.C.

Fibrous Disease of the Breast: An Emerging Entity

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THERE is increased recognition of a relatively uncommon malady of the breast first reported by Haagensen[1] as fibrous disease of the breast. Other authors have chosen terms such as fibrous mastopathy[2] or fibrous tumor of the breast.[3] They have described certain peculiarities of the lesion which serve to differentiate it from the more common disease entities of the mammary gland. Most agree that this presents as a palpable mass easily confused with carcinoma. One important differentiating feature between the two, however, is that while fibrous disease of the breast does not produce skin retraction, most cases of carcinoma can be counted on to do this at one time or another. Secondly, the disease is one of relatively young women that are usually in active ovarian hormone function. Most patients are found to have the lesion prior to the age of 40. Our patient was only 17 years old and hence, we felt it worthwhile to report the case to demonstrate that this does occur in very young women.

It is also the general opinion that most women afflicted with the lesion have very large pendulous breasts. There appears to be a predominance of occurrence of the lesion in the upper-outer quadrant of the breast. Palpation of the tumor reveals a hard discoid mass usually less than 5 cm in diameter. It is not as well delineated as a fibroadenoma, and most but not all patients describe it as painless. It is less freely moveable than other benign lesions. Mammography fails to show any calcification. The etiology, according to Haagensen, is a type of hormonal dysfunction in the form of a stimulus causing increased proliferation of fibrous connective tissue that tends to obscure the ductal epithelial structures. The exact nature of this hormonal stimulus is not completely evident.

CASE REPORT

A 17 year old white female was first seen in the office of the operating surgeon for the complaint of having a mass in her left breast which had been painful intermittently and had been present for approximately 2 months. She had consulted her attending physician and was referred in consultation for surgical opinion. On examination, the patient was a well developed, well nourished white female in no distress. Her blood pressure was 110/56. The pulse rate was 80 and regular. The respiratory rate was 18. She was afebrile. She was 5'3" tall and weighed 112 pounds. No abnormalities were noted on the physical examination except for grossly enlarged breasts with a mass on the left in the upper-outer quadrant measuring approximately 4. x 2.5 x 2. cm. This was tender to palpation and was lying free of attachment to the skin and free of attachment to the underlying muscles. The mass was not freely moveable but appeared to be within the confines of the breast in this area of the mammary gland. The breasts were somewhat difficult to palpate because of the enlarged size. However, the mass was fairly definite but did not seem to have a clear outline and blended within the rest of the breast tissues. The remainder of the breast was normal. The nipple was erect. The areola was negative. No nipple discharge could be expressed. No lymphadenopathy could be detected in the infra-clavicular area or in the axillary regions.

The patient had a past history of usage of contraceptive pills. However, they had been discontinued during her evaluation during

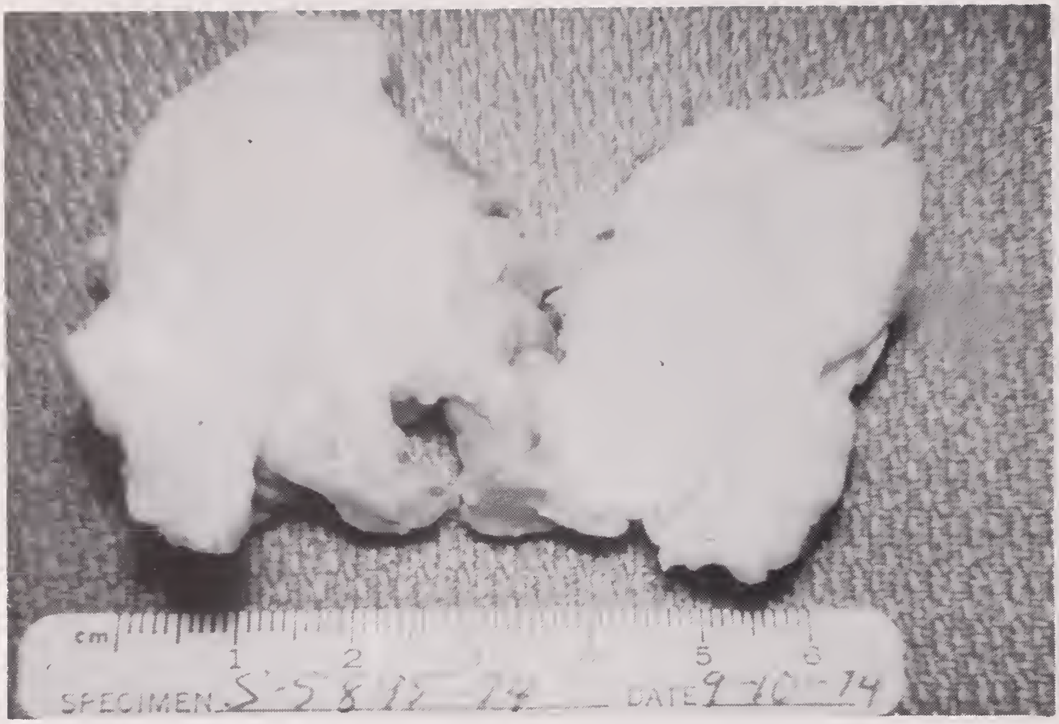

Figure 1: Cut surface of fibrous disease showing glistening, homogenous, non-encapsulated tissue.

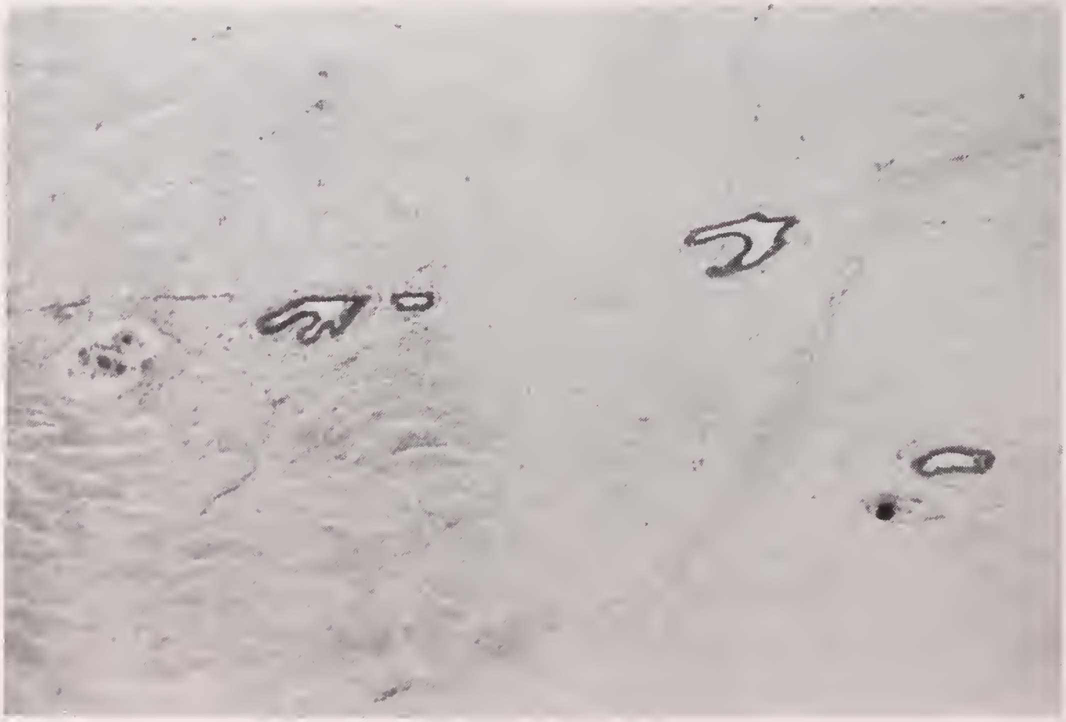

Figure 2: Marked proliferation of fibrous tissue component with ductal isolation (hematoxylin-eosin x100).

the two months prior to the present examination to see whether or not there would be any change in the size of the mass. There was no change in the size of the mass with her menstrual periods. The patient was Gravida 0, abortio 0, and the last pelvic examination and Pap smear were reported as normal one month prior to examination. The patient did admit to having female infections which were somewhat vaguely described as to etiology but sounded similar to vaginal discharges.

The chest x-ray was within normal limits, as were the urinalysis and CBC. The patient was admitted for a left breast biopsy on 9-9-74 and the mass was removed. Following surgery, she had an uneventful recovery.

PATHOLOGY

The specimen consisted of a mass of tissue

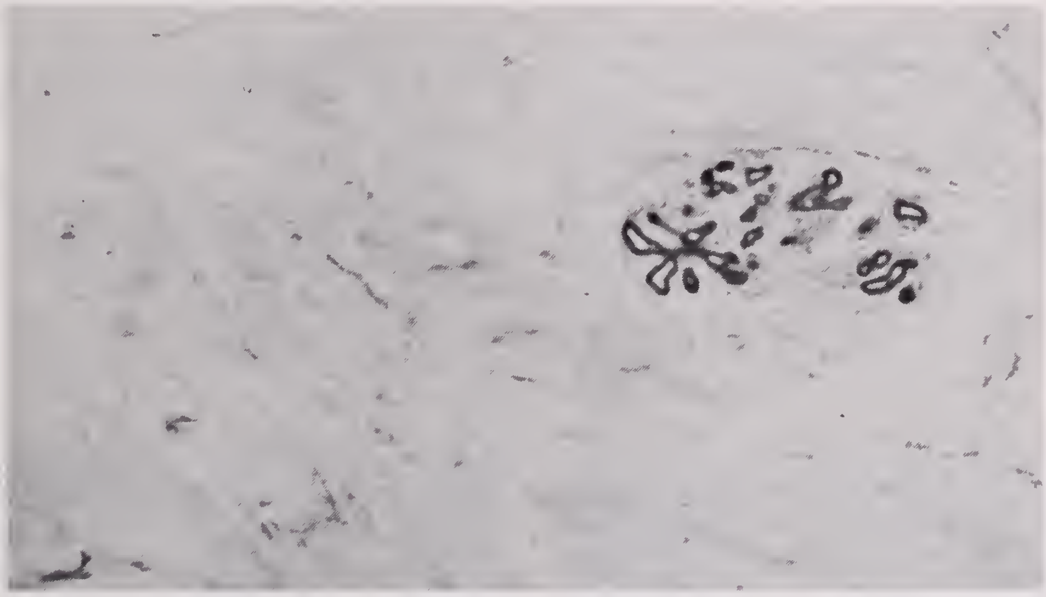

Figure 3: Paucity of Mammary lobules. (Hematoxylin-eosin. X100)

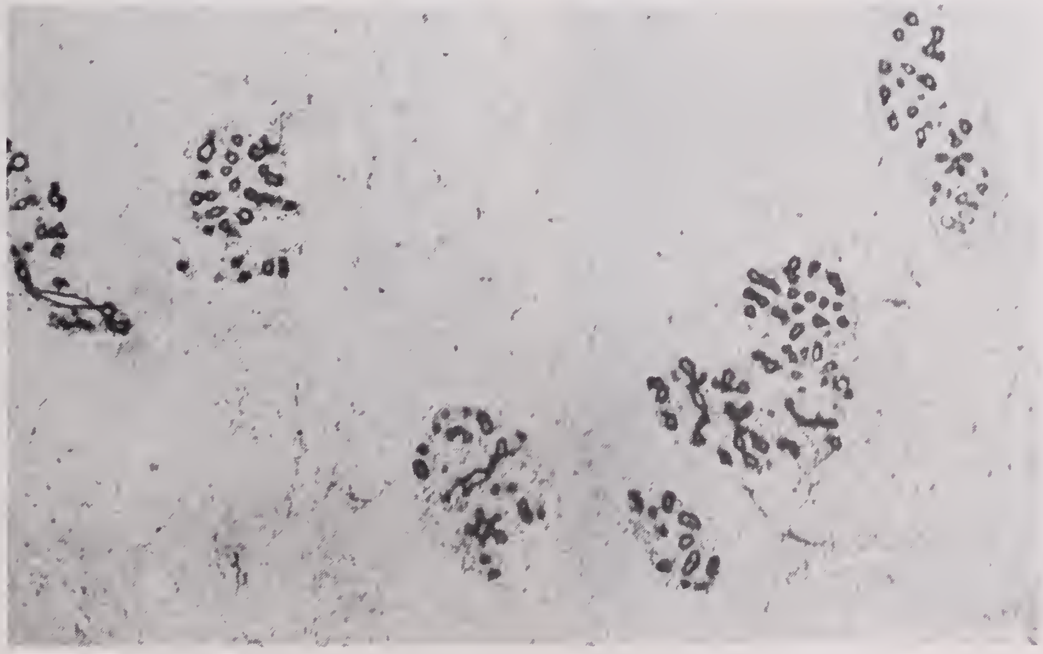

Figure 4: Normal fibrous tissue component and lobular pattern of sixteen year old girl. (Hematoxylin-eosin X100).

measuring 5 x 3.5 x 2.5 cm. A small amount of lobulated fat was seen around the outer surface along one edge. On section, the cut surface of the tissue was white, glistening, and very rubbery in consistency (Figure 1). The surface had a very slight nodularity. No encapsulation was present. The frozen section diagnosis was fibrous disease of the breast. Paraffin sections of the lesion showed marked proliferation of hyalinized fibrous tissue (Figure 2). A very rare mammary lobule was seen, but these were rather small and rather widely separated by the dense fibrous component (Figure 3). An occasional very mildly dilated duct located singly or in small groups was noted. These were lined by regular epithelial cells. Comparison with breast tissue from a normal 16 year old girl revealed a marked reduction in mammary lobules (Figure 4). No inflammatory component was present.

COMMENT

Minkowitz[4] and co-workers have classified this pathologic entity into three types. These types are based on the relative proportion of acinar tissue to stroma, Type I having the most prominent acinar component and Type III having the least. Our patient would conform to their Type III classification of fibrous disease of the breast. Typing apparently has little significance inasmuch as the prognosis for any type is excellent, and recurrence and bilateralism of the lesion is rare.

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Osteosarcoma - A Light in the Gloom*

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THREE patients with osteosarcoma illustrate the evolving concepts of treatment for this relatively rare tumor.

The first patient was a 14 year old Indian boy hospitalized on July 22, 1974, because of a progressingly enlarging mass in the right lower leg (Fig. 1A). The patient had been kicked in his right leg in September, 1973, and noticed a lump developing in that area. In March, 1973, he was admitted to Rosebud Hospital for biopsy, but left the hospital against medical advice before the biopsy could be performed. Roentgenograms at the time of his first hospitalization were interpreted as showing an osteosarcoma of his right fibula (Fig. 1B). The patient subsequently had had diminished appetite, general lethargy and weight loss of 18 pounds. The mass in the leg continued to enlarge and the patient's pain became increasingly worse so that he was unable to walk on his right leg. His past health had been good and the boy had been normally active prior to his recent illness. On physical examination at the time of the second hospitalization he was noted to be cachectic and would not allow his right leg to lie on the side of the swollen tumor. Circumference of the right leg was 17 cm. greater than the left in the area of the tumor. The skin and soft tissue over the mass was stretched and the patient was unable to dorsiflex the right ankle. He also had sensory loss in the cutaneous distribution of his right peroneal nerve. Laboratory studies included an alkaline phosphatase of 154 King Armstrong units. The white blood cell count and differential were normal. Roentgenograms of the patient's lungs demonstrated metastatic lesions in the right upper lobe. Biopsy of the right leg mass was diagnostic of osteogenic sarcoma (Fig. 1C). Because of the painful swollen leg an above-knee amputation was performed on July 29, 1974. The patient responded promptly to his amputation and was able to ambulate without difficulty on a prosthesis. Methotrexate with citrovorum rescue to diminish toxicity of chemotherapy was utilized but the patient's pulmonary lesion did not respond. He did not return for further therapy and died from his tumor on January 7, 1975.

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*From the C.C.T.V. Orthopaedic Conference held weekly between the University of Nebraska Medical Center, Lincoln V.A., Omaha V.A., Grand Island V.A., and Creighton - St. Joseph Medical Center.

The second patient was a 15 year old girl who complained of intermittent spontaneous pain in her left thigh above the knee for four months prior to admission. She described several episodes of acute thigh pain which then became quiescent. X-rays of the left femur demonstrated a cystic lesion with a cortical fracture in the distal aspect of the femur (Fig. 2). A needle biopsy was performed one month prior to admission and although the lesion was felt to be benign the material was insufficient for diagnostic purposes. The patient was therefore admitted for open biopsy. Except for the present problem she had been in good health all her life and never had been hospitalized. On physical examination her left lower thigh was tender over the distalateral one third. She had full range of motion in her knee and her examination was otherwise normal. The laboratory results included a sedimentation rate elevation to 30, white cell count 8800, and a normal differential. The patient underwent curettage excision of the distal femoral lesion on February 8, 1972, because of the presumptive diagnosis of fibrous dysplasia. However, microscopic sections of the excised lesion showed highly cellular, abnormal stroma with atypical spindle-shaped cells, nuclear pleomorphism, and hyperchromasia. Neoplastic bone formation, malignant cartilage and sarcomatous stroma were diagnostic of osteosarcoma. It was the

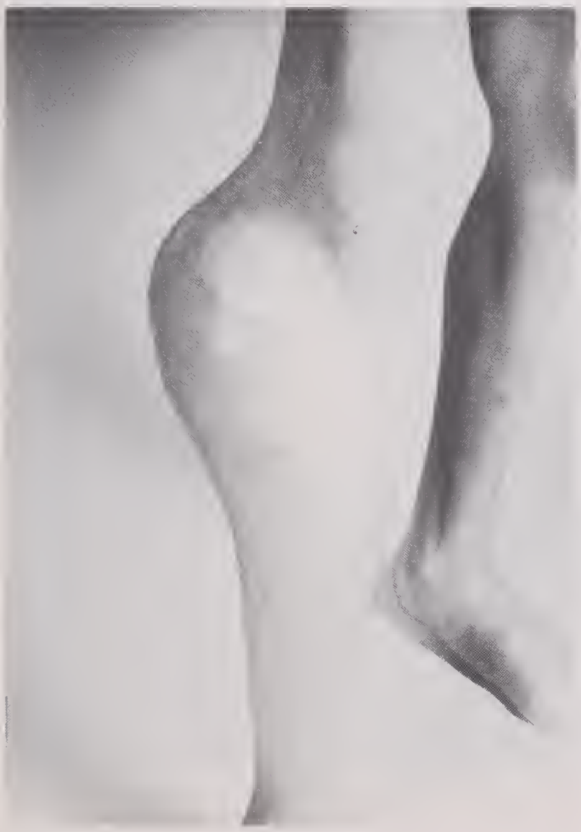

Figure 1A
Patient I was admitted because of progessively enlarging painful mass below right knee.

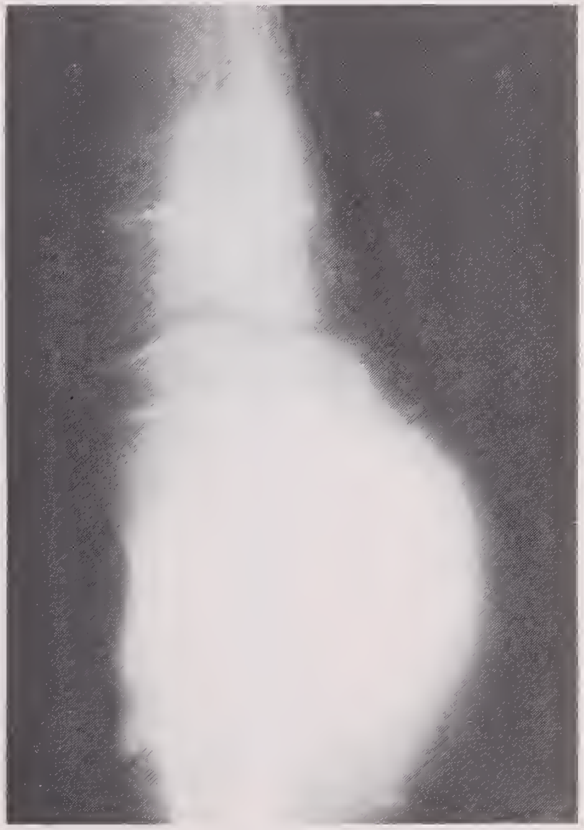

Figure 1B
Anteroposterior roentgenogram showing extensive destructive lesion of the fibula.

recommendation of the pathology consultant that the patient undergo amputation through the thigh well above the lesion. This was done on March 1, 1972, and the patient was then fitted with an above-knee prosthesis. She has been followed at Mayo Clinic and has received no other treatment except for her amputation. When she was last seen in March, 1975, three years after her amputation, she had no signs of local recurrence or systemic spread.

The third patient was a 12 year old boy admitted with intermittent pain and tenderness in his right knee for two weeks after a slight football injury. His knee had become warm and swollen and when he complained of this incidental symptom during a routine checkup with his family physician, roentgenograms were taken which demonstrated a destructive lesion in the distal femur (Fig. 3). On physical examination, the patient walked with a slightly stiff knee but had no gross abnormalities or masses palpable in his knee. Roentgenograms demonstrated the destructive lesion in the distal femoral metaphysis with soft tissue swelling. Laboratory findings were normal except for elevated alkaline phosphatase to 40 King Armstrong units. A biopsy of the lesion was diagnostic of osteogenic sarcoma and the patient underwent a hip disarticulation. He was also treated with high dose methotrexate and citrovorum rescue and fitted soon after his amputation with a hip disarticulation prosthesis. His chemotherapy was given monthly and within four months after his amputation the patient had resumed his normal activities walking in his prosthesis without the use of a cane. He had no evidence of metastases for the one year following his definitive amputation. He is to continue his monthly chemotherapy at least for two years subsequent to the amputation.

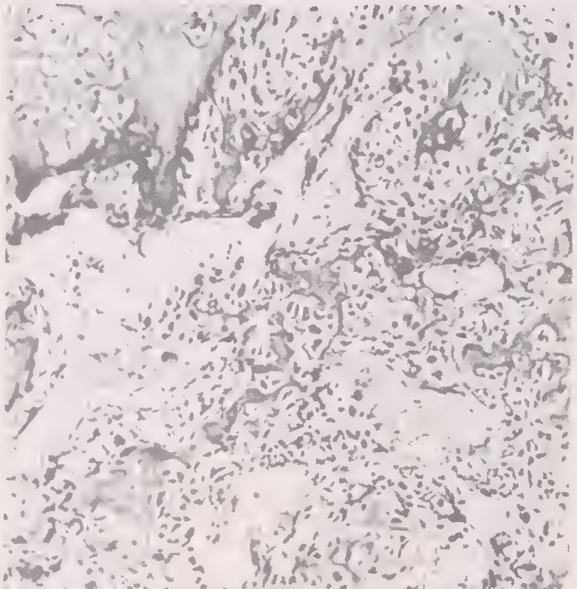

Figure 1C
Biopsy of leg mass was diagnostic of osteosarcoma.

Discussion

Cancer is second only to trauma as the most frequent cause of death in children and young adults. The American Cancer Society estimates that in the United States there are 4,000 cancer deaths annually in children under 15, half of which are from leukemia

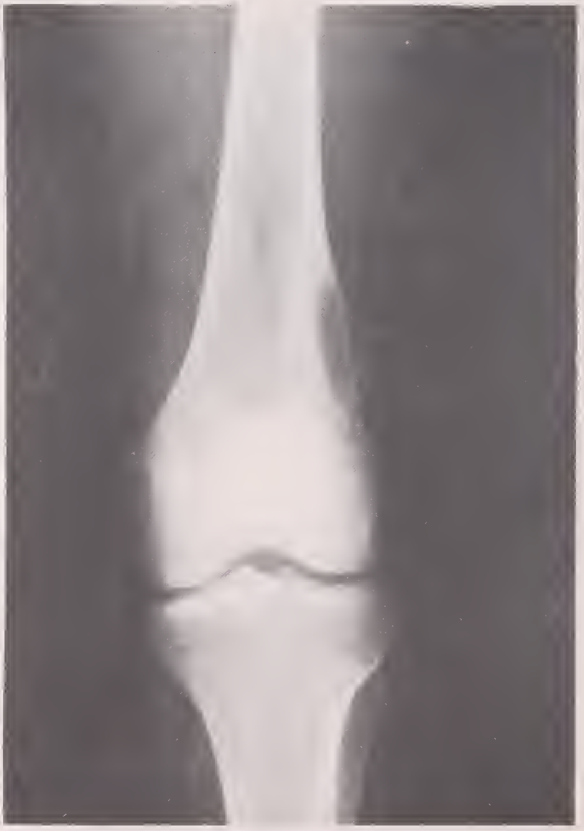

Figure 2
Patient 2 — Anteroposterior roentgenogram showing lytic lesion of the distal femur. Sclerotic margin superiorly suggested benign condition but distally the lesion was destroying bone cortex.

and lymphoma, while most of the rest are from either brain, bone or kidney tumors. Trauma has not been implicated as oncogenic in bone although, as in the first and third cases, a history of injury may be coincidental with the onset of tumor pain. The differential of malignant bone tumor is especially important because of the large number of benign conditions, including bone cysts, fibrous dysplasia, and fatigue fractures that may mimic clinical symptoms of cancer. A benign condition such as osteochondroma or enchondroma, may become malignant and the well delineated superior margin of the second patient's tumor (Fig. 2) raises the question of malignant degeneration in a previously benign cortical defect.

The diagnosis of osteosarcoma, the most frequent primary bone tumor in children, must be histologic. Clinical and radiographic impressions are important but may be misleading. In the past the chance for survival after diagnosis of osteogenic sarcoma was dismal and at best ranged from 15-30%. Prompt definitive treatment by amputation, with the addition of chemotherapy, has been adding considerably to patient survival. Use of agents such as methotrexate and adriomycin have been increasing recent cure rates in a way that seems analogous to the results of chemotherapy for Wilms tumor.[3,4] However, chemotherapy cannot change the course of a far advanced metastatic tumor as illustrated by case one.

Definitive amputation should usually be done through the joint above the lesion. In certain instances where roentgenographic findings, including margination, as in the second patient (Fig. 2), indicate a relatively slow growing process, amputation through the proximal femur may be adequate. However 15% of distal femoral osteogenic sarcomas have been found to have skip areas including the proximal shaft.[2] Consequently we prefer the assurity of disarticulation to the theoretical advantages of high above-knee amputation. The rehabilitation advantages of a high above-knee amputation are more theoretical than real since

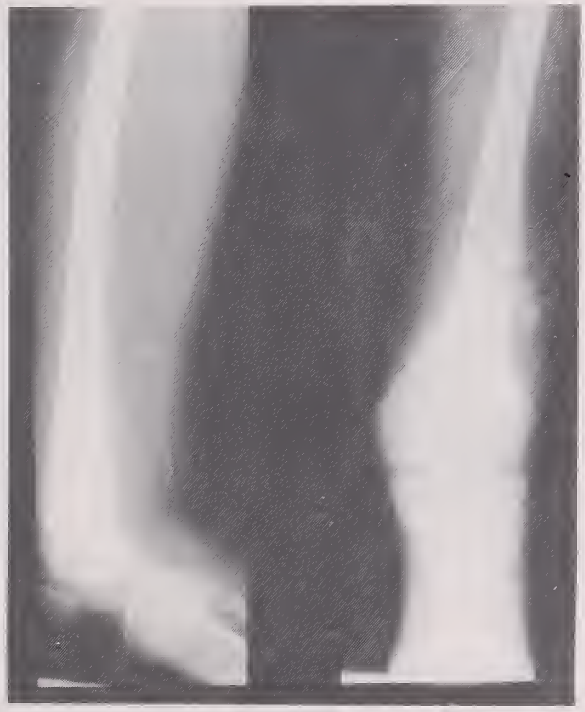

Figure 3
Patient 3 — Anteroposterior and lateral roentgenograms demonstrating destructive lesion of the distal femur with soft tissue involvement. This is a more typical x-ray of osteosarcoma than is Figure 2.

prosthetic technology now allows the hip disarticulation amputee to be as independent as the patient with the high above-knee level.

After multiple trials, radiation treatment has been found to add nothing to therapy and tends to delay definitive amputation.[1,3] Resection of a metastatic pulmonary lesion, if feasible, can increase survival chance.[1] Pulmonary resection was not done in the first patient because of the evidence of multiple lesions. The probability of pulmonary metastasis occurring two years after treatment is very close to zero. Consequently the second patient, who has now survived three years without metastasis, can be considered cured on the basis of statistical probability. Still, continued follow-up is planned until the patient's cure is more of a reality than a statistical probability.

Summary

Three cases of osteogenic sarcoma illustrate the varying clinical course of this highly malignant tumor in young patients. Newer therapeutic modalities and concepts are improving the gloomy prognosis of the past.

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Drugs Used to Manage Hypertension*

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and
H. FREDERICK DALSKE, Ph.D.

AFTER the physician has decided that drug treatment is indicated for his hypertensive patient, he must select therapy from more than 100 available and potentially effective drug products. By class, the choices include: tranquilizers, sedatives, diuretics, sympatholytics, ganglionic blockers, and vasodilators. The decision is further complicated in that the individual contribution of stress, nerves, vascular volume, hormones, and vasoconstriction in the etiology of each patient's hypertension may determine the proper selection of an effective regimen.

The approach to antihypertensive medication is beginning to develop a more scientific and rational basis. Laragh[1] has found that patients with low renin hypertension respond differently to diuretics and sympatholytics than do patients with high renin hypertension. Knowledge of the basic pharmacologic mechanisms, potential side effects, and relative potency of antihypertensive agents is essential for the design of an effective regimen. Patient comfort and compliance must also be considered.

A recent prescription survey[3] of actual drug utilization in Nebraska revealed a tendency for physicians to overprescribe reserpine and diuretic drugs and to utilize insufficient amounts of alpha methyldopa, guanethidine, and propranolol. Some of these agents have reached the market since many physicians had their formal pharmacologic training. We propose to review in this and succeeding articles the practical pharmacology of antihypertensive medications.

General Therapeutics for Antihypertensives

Before proceeding directly to the basic pharmacology of each drug class, some general differences in therapeutic characteristics are worth considering because they markedly alter the regimens prescribed.

---

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First, these drugs differ importantly in their dose-response characteristics as shown in Figure 1. Reserpine and Thiazide diuretics have a flat dose-response curve. Administering 0.1 mg of reserpine and/or 25 mg of hydrochlorothiazide (or an equivalent) twice a day may reduce the blood pressure to the therapeutic goal. If the reduction is insufficient, the dose can be doubled and a greater effect achieved. However, when the reserpine dosage has reached a total of 0.25 mg and the hydrochlorothiazide dosage a total of 100 mg daily, further increases in dose are *not* accompanied by lower pressure. The incidence of side effects does continue to increase with dosage and this represents risk without benefit on the horizontal or flat portion of the dose-response curve.

The rest of the effective antihypertensives fit the general pattern of proportional dose-response curves. The amount of blood pressure reduction increases with the dose, though some variation between patients is expected.

The optimum *range* of effective doses is a second consideration in titration. Drugs with a flat dose-response curve happen also to have a small range of optimum dose. Thus, one can rapidly advance to or even start at the full dose. On the other hand, most of the sympatholytic agents have a broader range of optimum dose as shown in Figure 2. The combination of a steep dose response curve and a wide range of optimum dose make titration very difficult. This is exactly the case with guanethidine where the optimum dose for a given patient may range from 5 - 300 mg per day. Yet, at the optimum dose for each patient, small changes in dose may cause large changes in blood pressure due to the steep dose-response curve.

Finally, it is also necessary to realize that

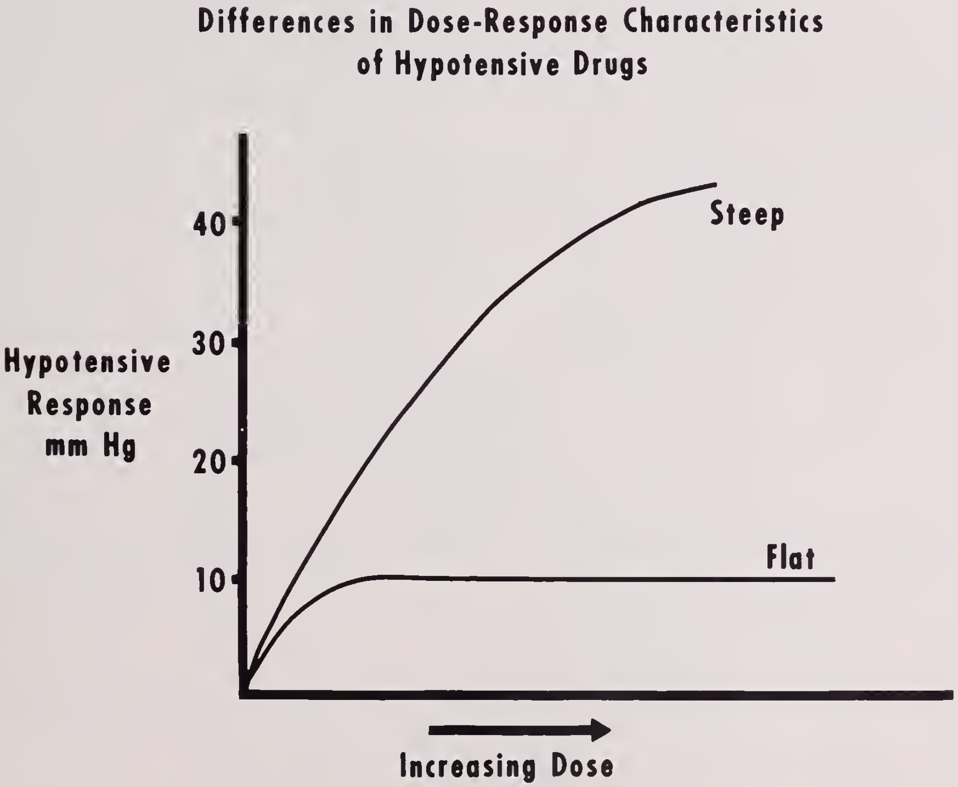

Figure 1

Dose-response characteristics of antihypertensive drugs. A drug with a flat dose-response will provide greater hypotensive effects only with dose increments in the lower range. The therapeutic effects then become maximal and cannot be increased with even heroic doses, although side effects increase along with increase in the dose. On the other hand, drugs with a steep dose-response relation continue to provide more antihypertensive effect as the dose is increased over a wide range. (Used with permission of the publisher.) [2]

the patient's homeostatic mechanisms will attempt a compensatory response for every hypotensive administered. If the drug depletes vascular volume, then both the sympathetic nervous system and the renin-aldosterone system will be stimulated. Most of the "resistance" that develops to a previously effective regimen is attributed to compensatory responses. For this reason, combination drug therapies are frequently required when sympatholytic or vasodilator drugs are used in patients with moderate or severe hypertension.

The authors do not believe that sedatives and tranquilizers other than reserpine have been shown effective in the treatment of hypertension. Future articles will consider the diuretics, sympatholytics, and vasodilators of potential utility for medical hypertension control.

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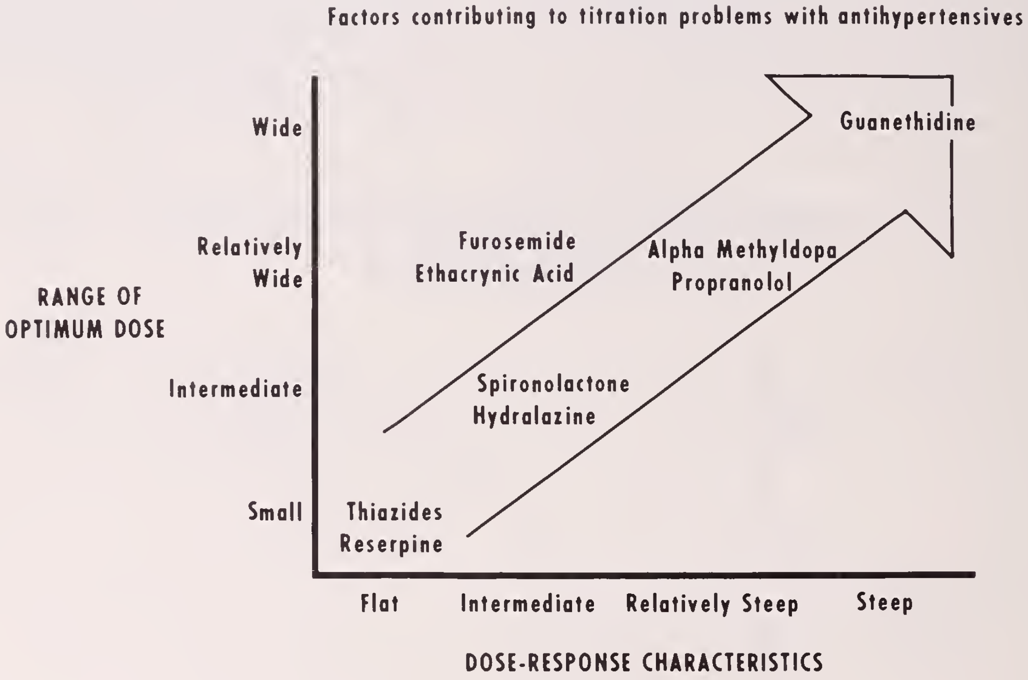

Figure 2

Antihypertensives classified by both dose-response characteristics and range of optimum dose. The arrow indicates the direction of increasing difficulty in titration. (Used with permission of the publisher.)[2]

The Nebraska Survey of Respiratory Therapy

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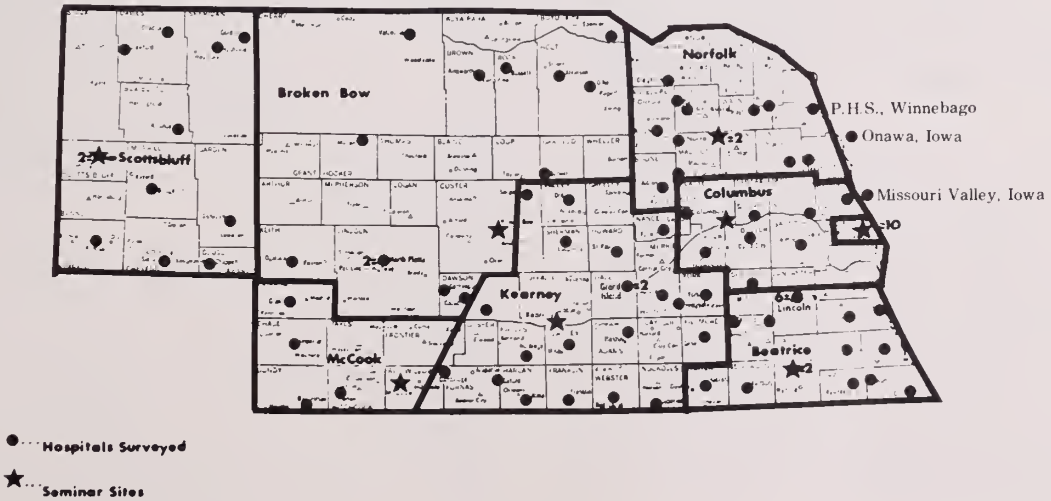
RESPIRATORY therapy is a relatively new modality in medicine, comprising oxygen and aerosol treatment, chest physiotherapy, and mechanically assisted ventilation.[1] Because of an increasing number of patients with chronic obstructive pulmonary disease and the remarkable effectiveness of cardiorespiratory support in intensive care, the role of respiratory therapy is becoming important in hospital practice. Therefore, a statewise project on respiratory therapy was conceived and was sponsored by the Nebraska Regional Medical Program from September 1972 to August 1973. The basic aims of the project were (a) to survey the current status of manpower, facilities, and the services of respiratory therapy available in the state, (b) to conduct regional seminars on respiratory therapy and (c) to formulate the guidelines for improvement of this particular area in pulmonary medicine.

The 1973 addition of the American Hospital Association Guide to Health Care Field[2] lists 106 hospitals in the state of Nebraska. Our survey covered all of these and 5 other hospitals; a total of 111 hospitals. Approximately one half of all hospitals in this state are relatively small having the patient's bed number of less than 50 and about 35% of all hospitals in the state have the bed number of 50 to 200. The remaining 15% have the patient bed number between 200 to 600. The survey consisted of mailing questionnaires to all hospitals and then visiting each hospital before these questionnaires were completed to assure correct answers. In Figure 1, the dots show the location of hospitals which were surveyed. The numerals in larger cities indicate the number of hospitals surveyed.

The state is divided arbitrarily into eight regions (Fig. 1) and a seminar was conducted at the following locations: Beatrice, November 16-17, 1972; Kearney, March 22-23, 1973; Norfolk, April 26-27, 1973; Scottsbluff, June 28-29, 1973; McCook, July 19, 1973; Broken Bow, August 16, 1973; Columbus, September 6, 1973 and Omaha, September 27, 1973. In conducting the regional seminar, a participation of local physicians who are active in pulmonary medicine was encouraged and at

FIGURE 1
Nebraska hospitals surveyed for respiratory therapy.



the concluding seminar in Omaha the American Registry of Respiratory Therapy and the Joint Review Committee for Inhalation Therapy Education were represented by Robert M. Lawrence, M.D. and H. Frederich Helmholz, Jr., M.D., respectively.

Organization and Manpower

According to our survey, the percentage of patients admitted with primary or secondary diagnosis of respiratory disease ranged from 11.7% (Beatrice-Lincoln area) to 23.5% (Scottsbluff area) with a statewise average of 15.4% of the total admission during the last reporting year. To serve these patients, 78% of all hospitals in this state provide a respiratory therapy service. Although this leaves 22% without this service, the majority has a plan to establish such a service in the near future. It is found that 31% of all hospitals in this state have an organized respiratory therapy department and that 5% have contracting service. The latter is confined mainly in the western part of the state.

In terms of medical supervision, 43% of all hospitals surveyed have an advisory committee on respiratory therapy. It is apparent that approximately 35% of all hospitals have no medical supervision and the matter is left entirely to the nursing service or to the paramedical personnel. A study of background of physicians who supervise the respiratory therapy service reveals that the majority is the family physician, but 10% of all hospitals have a specialist such as an internist, anesthesiologist, or a surgeon. In Table 1, the professional background of the technical director of respiratory therapy department is shown. At the time of this survey the state of Nebraska had 7 registered respiratory therapists; 2 in Lincoln and 5 in Omaha. 10 registry eligible respiratory therapists, 1 each in Alliance, Grand Island, Hastings and Norfolk, and 2 each in Scottsbluff, Lincoln, and Omaha. There were 5 certified respiratory therapy technicians and 4 certification eligible respiratory therapy technicians. Also noted were 5 registered physical therapists, 4 nurse anesthetists, and one licensed practical nurse.

Table 1

ORGANIZATION

Status of The Technical Director of Respiratory Therapy Department

Respiratory Therapist, registered (Lincoln 2, Omaha 5)	7
Respiratory Therapist, registry eligible (Alliance 1, Grand Island 1, Hastings 1, Lincoln 2, Norfolk 1, Omaha 2, Scottsbluff 2)	10
Respiratory Therapy Technician, Certified	4
Respiratory Therapy Technician, Cert. Eligible	4
Physical Therapist, registered	5
Nurse Anesthetist, registered	4
Licensed Practical Nurse	1

Facilities:

The quantity of respiratory equipment available throughout the state in terms of ventilator, respirator, and nebulizer is shown in Table 2. The largest number of respirators in use is the Bennett-PR Series and this is closely followed by the Bird Mark series and it is followed by a portable Bennett-AP series. In the category of ventilators, the Bennett MA-1 leads the field followed by the Air Shield, Morsh, Ohio-560, and Emerson Post-OP Ventilators. In the field of ultrasonic nebulizers, DeVilbiss is most prevalent and this is followed by Monaghan and Mist-o-Gen.

In terms of other facilities, 65% of all hospitals in the state have an Intensive Care Unit, while 54% have a pathology laboratory. Only 19% of hospitals provide lung function tests and 14% have pulmonary laboratory. Throughout the entire state, there is one respiratory therapy school in Omaha, which is accredited by the Educational Council of American Medical Association.*

Services:

The total number of patients receiving

Table 2

EQUIPMENT

RESPIRATORS	
Bennett-AP series	58
Bennett-PR series	132
Bird Mark series	112
VENTILATORS	
Bennett MA-1	50
Ohio 560	6
Emerson post-op	6
Air Shields	9
Morsh	8
ULTRASONIC NEBULIZERS	
DeVilbiss	108
Monaghan	29
Mist-O-Gen	2

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*Following the completion of this survey, another school is approved for the training of respiratory therapy technicians in Lincoln.[3]

IPPB treatment is shown in Table 3A. It varies greatly in proportion to the hospital size; 29 hospitals reporting from 1 to 50 patients per year, while 8 hospitals are reporting more than 1,000 patients per year. In terms of the total number of IPPB treatments given per year (Table 3B), 58 hospitals give less than 1,000 treatments, while 9 hospitals report more than 10,000 IPPB treatments. In comparison to IPPB therapy, the number of humidification treatment is approximately one-half of that of IPPB.

62% of all hospitals surveyed have an outpatient respiratory care service, and 16% have home care service available. A routine, regular, bacteriological check on respiratory equipment is reported in 70% of hospitals, while 29% of them have no established procedure for bacteriological surveillance. 54% have inservice educational programs on respiratory therapy while 36% have none. In terms of the medical records, only 33% of hospitals have regular records kept in relation to cleaning and maintenance of their equipment, and 54% of hospitals keep daily records of IPPB therapy. As to the cleaning technique of respiratory equipment, 14% of hospitals report steam autoclaving and 24%, gas sterilization, and 77%, with chemical reagents.

Table 3

IPPB

A. Total number of patients per year receiving IPPB Therapy

	Number of Hospitals
1 - 50	29
50 - 100	16
100 - 300	16
300 - 500	9
500 - 1,000	9
> 1,000	8
TOTAL	87

B. Total number of IPPB Therapy given per year

1 - 100	18
100 - 500	23
500 - 1,000	17
1,000 - 5,000	11
5,000 - 10,000	9
> 10,000	9
Total	87

Regional Seminars

The format of seminar consisted of (a) a general review of history of respiratory therapy, organization of respiratory therapy department, responsibilities of physicians, respiratory therapists and technicians, and relationships with nursing service, (b) a general outline of ventilator, respirator, O_2 and aerosol therapy, chest physiotherapy, and (c) an informal workshop and demonstration of a ventilator, respirator, spirometer and blood gas analyzer. In general, the seminars were well attended by the local personnel who is engaged daily in respiratory care. the dialogue during the seminar and workshop revealed a great deal of regional conditions and needs in respiratory therapy. In the concluding seminar, which was held in Omaha, the emphasis was on the problems in certification and registry. In each seminar, its efficacy was evaluated with preseminar and postseminar examinations, which covered the subjects discussed at each meeting. There was substantial improvement in the understanding of the use of ventilator, respirator, humidifier, arterial blood gas data, and lung function test.

Critique

In 1968, there were only two registered respiratory therapists in the entire state of Nebraska and it has increased to seven by the time this survey was made in 1973 (Table 1). It is indeed an impressive improvement and reflects an increasing interest in respiratory therapy by hospital administrators and by the medical community as a whole. Our survey, however, points out clearly (a) a marked shortage of certified respiratory therapy technicians, who are in a greater demand in many hospitals than the registered therapists, and (b) a scarcity of approved educational programs of training respiratory therapy personnel. Theoretically, the educational program of respiratory therapy can be easily provided by the medical school, where teaching programs in paramedical fields such as medical technology, radiology, technology, physiotherapy, and physician's assistant are already present. Unfortunately neither of the two medical schools in this state has an educational program in respiratory therapy. A further improvement in respiratory care is expected to come mainly through an active participation of well-trained personnel. The present status of manpower and its distribution dictates that several approved teaching programs have to be developed in the future. We are in need of one-year programs for certified respiratory therapy technicians in central and western communities of the state.

It is a reasonable requirement that each hospital with respiratory therapy service should appoint at least one physician to supervise the medical aspect of respiratory therapy, and this becomes almost imperative when the ventilators are used in the intensive care area. Throughout the regional seminars, it became apparent that the quality in respiratory therapy in each local hospital is greatly influenced by the physician's enthusiasm and interest. A successful respiratory care team starts with a strong leadership of local physicians.

The phenomenon of contract service of respiratory therapy seen in some hospitals in the western part of the state needs a comment. Recently, the pros and cons of contracting service of respiratory therapy has been debated and remain controversial.[4] There are two aspects which deserve a careful consideration. The first concerns the adequacy of medical supervision of such a service, which is a physical impossibility because the adequate medical supervision means a daily physical contact and communication in an intensive care unit or bedside between a responsible physician and the respiratory therapy personnel. The second is the financial aspect, which implies basically a practice of a profit-making commercial firm and its employees in otherwise nonprofit-making facilities of community or teaching hospitals.

The technical director (respiratory therapist or chief respiratory therapy technician) in each hospital occupies an important position to carry out daily respiratory therapy such as IPPV, IPPB, O_2, aerosol, humidification, and physiotherapy. It is a position to supervise each technician's performance as well as the efficacy of therapy. Without close bedside supervision, the maximum effectiveness of therapy cannot be achieved. Unfortunately too often the respiratory therapist becomes an arm-chair manager neglecting the bedside duties and daily contact with the patient. It is imperative that the technical director spends a major portion of his time with patients by making a daily round of wards with technicians to assess the effectiveness of the respiratory therapy.

In our survey it became apparent that the role of lung function testing is assigned to the respiratory therapy department in some hospitals. Although a certain amount of knowledge of lung function tests, in particular that of the arterial blood gases, is provided in the respiratory therapy teaching program, it is not sufficient enough to qualify the respiratory therapists for the lung function testing. Therefore it is desirable to assign this responsibility to a full time staff with a sufficient background of pulmonary technology. Currently, there is an excessive outflow of respiratory equipment in the market, particularly in the field of respiratory therapy. In the name of better health care, many mechanical devices, some of which are fairly expensive, are purchased without careful scrutiny eventually adding to the cost of patient care. Thus, prior to the purchase of an equipment, it should be reviewed by the medical director or by a qualified physician. Some of the recent examples of superfluous mechanical devices in respiratory therapy are the ventilation monitor and the intermittent mandatory ventilation (IMV) controller. The former is supposedly to give a digital readout of the minute ventilation, respiratory rate, and tidal volume as it is connected to the ventilator's circuit. These respiratory parameters, however, can be readily assessed at the bedside by observing the patient's chest movement, breathing pattern, and the overall respiratory effort. An overdependency on a mechanical device beyond the essential need will not improve the patient care but is bound to clutter the operation of assisted ventilation and to dull our keen sense of clinical judgment. Similarly, the use of IMV controller in weaning patients from mechanical ventilation is not essential in the majority of cardiopulmonary patients. The patient's clinical condition and the series of arterial blood gas data before and after a patient comes off from a ventilator give sufficient guidelines in the weaning process.

The tendency to overdress the respiratory therapy mechanically with unnecessary devices is real and it should be avoided.

Acknowledgement

The author wishes to express his sincere thanks to the staff of the Cardiopulmonary Laboratory and the Respiratory Therapy Department of the Immanuel Medical Center for its excellent cooperation in regional seminars. Also the generous assistance provided by the staff of the Nebraska Regional Medical Program, the American Lung Association of Nebraska, and the members of the Nebraska Chapter of American Association for Respiratory Therapy is gratefully acknowledged.

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The Gravlee Jet Washer

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CHARLES A. FIELD, M.D.
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FOR years there has been controversy over the best method for sampling the endometrial cavity for cytological evaluation to help clarify the etiology of menstrual disorders. The methods used have ranged from cytology smears of the vaginal pool to dilatation and curettage.

The main emphasis has been to develop a method that would adequately screen for endometrial carcinoma and could be used in an outpatient facility. The procedure used should have a maximum of patient acceptance, require no analgesic or anesthetic, and be performed in patients at risk.

The Gravlee Jet Washer (GJW) has been used successfully in other institutions. White[1] et al reported a 96.6 percent diagnostic accuracy in 31 cases of endometrial carcinoma with one false negative. Ansari[2] et al, used the GJW in staging the endometrium. The results were most reliable when performed in the first 24 hours of menstruation. They felt that it was less traumatic to the patients than sharp curette biopsy. Smith[3] compared the results of GJW aspiration to an endometrial biopsy and reported that 87 percent of 66 cases of endometrial carcinoma using GJW, were positive compared to only 63 percent of endometrial biopsies. DePetrillo[4] et al had paramedical personnel perform the procedure in 141 cases, with 92.2 percent "satisfactory" results. Bibbo[5] et al reported a series of 600 GJW; 113 jet wash samples were inadequate for cell block diagnosis. She stated that gynecologists familiar with the technique, however, had almost no failure in obtaining tissue fragments. All but 1 of 23 malignant lesions were diagnosed. Doctor Bibbo feels, "The menopausal and postmenopausal, those in high risk groups, those for whom estrogen therapy is being considered, follow-up after cancer treatment, and if hyperestrogenism exists," should be tested by the Gravlee Jet Washer.

The GJW produced by the Upjohn Company, has been previously investigated at the University of Nebraska Hospital with unpublished results. This study was subsequently undertaken to determine patient acceptability and effectiveness of the GJW, when used by the OB/GYN physicians at the University of Nebraska Hospital.

Methods and Materials

The patients were placed in the dorsal lithotomy position. After determining the position of the uterus by bimanual examination, the speculum was inserted into the vagina, the anterior lip of the cervix was grasped with a tenaculum and the uterus was then sounded. The GJW was then inserted without anesthesia or analgesia. The specimen was then obtained, using the prescribed manner, and was sent to the pathologist for both histological and cytological examination.

The patients subsequently had a D & C performed under general anesthesia. These tissue specimen reports were compared with the GJW specimens as to adequacy and accuracy of diagnosis.

The patients were private and clinic patients seen at the University of Nebraska Hospital.

41 Patients
Age range — 26 - 79 years
Mean age — 44
Parity range — 0 - 9
Patient Load 75% > Para 1
White — 32
Black — 6
Other — 3

There are 41 patients whose age ranged between 26 and 79 years of age with a mean age of 44. The parity was 0 to 9 with 75 percent of the patients being more than para 1; 32 of the patients were white, 6 black, and 3 other races. All patients selected for the study presented with abnormal bleeding patterns, except for two cases. One case presented with a cervical polyp and one with an atypical cervical cytology.

The procedures were performed by one of a group including the staff physician and four residents.

Operators	Success Rate	
1 Staff	57%	(7)
1 Senior Resident	100%	(1)
1-2nd Year Resident	33%	(3)
2-1st Year Residents	66%	(3)
	40%	(21)

Having the study performed by physicians with different levels of training and experience was allowed with the thought that the results would more realistically reflect physician population. The majority of the procedures were performed by a first year resident with a success rate of 40 percent. The success rate of the staff physician was 57 percent. Success rate is defined as obtaining adequate tissue for study. The preoperative diagnoses are listed below.

DIAGNOSIS — PRE D & C

Dysfunctional Uterine Bleeding	6
Menorrhagia	3
Metrorrhagia	8
Menometrorrhagia	4
Irregular Bleeding	5
Polyp	1
Post Menopausal Bleeding	13
Dysplastic Pap (Fractional D & C)	1

The preoperative diagnosis revealed 39 bleeding disorders with 13 post-menopausal bleeding, 6 dysfunctional uterine bleeding, and 15 cases of menorrhagia, metrorrhagia, or menometrorrhagia. There were only two diagnoses that were not associated with vaginal bleeding.

POST D & C

Diagnosis Post D&C	DX Same	Diagnosis Different	No Diagnosis
Proliferative	8	0	9
Secretory	4	1	2
Benign	2	0	2
Atrophic	0	0	3
Mild Hyperplasia	1	0	1
Cystic Hyperplasia	0	1	2
Adenomatous Hyperplasia	0	0	2
Malignant	2	0	1
Total	17 (41%)	2 (5%)	22 (54%)

When the postoperative tissue diagnosis was compared with the tissue diagnosis obtained from the GJW specimen, "no diagnosis" was reported from the jet washings, in 22 (54 percent) cases. Of the three cases which were confirmed to be malignant by D & C, the diagnosis of malignancy from GJW tissue was determined in two cases and insufficient material for diagnosis was reported in the third case. This was a case of endocervical carcinoma that was diagnosed by fractional curettage. When (GJW) material was adequate, the diagnostic correlation between GJW and a D & C was 88.3 percent.

DIFFICULT STATUS

Easy	22
Slightly Difficult	14
Very Difficult	2
Not Accomplished	3
1. Cervical Stenosis	2
2. Servere anxiety and tension	1

An evaluation of the "difficulty status" of the procedure was subjectively evaluated by the operators. Thirty six (88 percent) were classified as easy or slightly difficult. Two cases were listed as very difficult and three cases were not accomplished because of cervical stenosis or severe anxiety and tension.

RELATION TO PARITY

Difficulty status	2 or greater	Less than 2
Easy	18 (62%)	4 (40%)
Slightly difficult	8 (28%)	4 (40%)
Difficult	1 (3%)	1 (10%)
Not Accomplished	2 (7%)	1 (10%)

When the "difficult status" was compared with parity it showed that in women para 2 or greater, 90 percent of the procedures were easy or slightly difficult and 10 percent were difficult or not accomplished.

RELATION TO AGE

Difficulty status	Greater than 55	Less than 55
Easy or Slightly Difficult	7 (87%)	29 (88%)
Difficult	0	2 (6%)
Not Accomplished	1 (13%)	2 (6%)

The "difficult status" was also compared with age. No correlation between difficulty and patient age was found.

Discussion

The results of the GJW were usually accurate when sufficient material (as evaluated by the pathologist) was obtained. However, insufficient material was obtained in 54 percent of the cases. This is critical if the clinician is to properly recommend follow-up D & C for the appropriate patients.

In specimens where sufficient material was obtained, no malignancies were missed. Eighty two percent of the cases were evaluated as being easy.

The cell block technique is the most satisfactory method for pathologic diagnosis and enough tissue must be obtained for adequate interpretation. It is important, however, that the pathologist not interpret insufficient material as negative. The cytology study in all cases was non-contributory.

The ease of the procedure and adequacy of the specimen should increase with the experience and the motivation of the operator. The procedure may be a useful tool for screening patients with abnormal bleeding. GJW procedures may be considered as an acceptable method of office screening for disorders that implicate possible endometrial pathology.

Patient discomfort and low tissue yield were the main factors that would question the periodic routine use of this procedure as a screening method. Experience and motivation did, however, increase the success rate.

Conclusions

1. Results of the GJW technique were accurate when sufficient material was obtained. No malignancies were missed.
2. Cell block technique is the most satisfactory pathologic diagnostic method.
3. Cooperation between clinician and pathologist is essential. Unsatisfactory material should not be read as negative by the pathologist.
4. The high percentage of insufficient material report, decreases with experience and motivation of the operator. Adding the tip of the GJW to the specimen bottle markedly increases the success rate of sufficient tissue for diagnosis.
5. The procedure may be a useful tool for screening processes, but cannot totally replace the D & C.

(NOTE: A preliminary report of this paper was presented at the Nebraska OB/GYN Society Meeting, Las Vegas, Nevada, November, 1974, by Doctor George Adam of the OB/GYN Department at the University of Nebraska Medical Center.)

The authors wish to express their gratitude for the encouragement and assistance provided by the Upjohn Company who provided funds and material for the study.

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Nutrition and Physical Fitness: Food Fads and Quackery

PART II

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Dietary Practices as Food Fads in Athletics

Carbohydrate-Loading Technique. — Carbohydrate loading is a technique in which athletes exercise strenuously while eating a low-carbohydrate diet and then exercise lightly while eating a very high high-carbohydrate diet. These techniques have been shown to double glycogen content of muscle and increase endurance of track athletes.[24] The use of the diet program, however, is not without risk. Increased glycogen deposition is associated with deposition of three times as much water as glycogen. Glycogen and water can be deposited in muscle to such a degree that a sensation of heaviness and stiffness is produced. Recently, the carbohydrate-loading technique was used by a marathon runner who then suffered angina-like pain and electrocardiographic abnormalities.[25] Glycogen is deposited in cardiac muscle and with it, water. Angina-like symptoms have been described in the leg muscles of Swedish athletes who have used the dietary system.

Athletes using this dietary practice should be informed that glycogen can destroy muscle fibers. Although destruction of muscle fibers by glycogen occurs only in disease states (e.g., acid maltase deficiency), we do not know what happens to the muscles and heart of an athlete who does not use all of the muscle glycogen that he has stored as a result of the loading technique. Some athletes, after using the carbohydrate-loading technique, developed myoglobinuria, presumably as a result of muscle destruction. Ultimately, athletes and physicians interested in athletics must decide whether athletic competition represents technology versus technology or man versus man. If the latter is preferred, there is no place for carbohydrate-loading techniques.

Weight Gain. — Some athletes equate gain in weight with gain in effectiveness in sports. They improperly relate size with strength. They do not understand the difference between weight gained in the form of muscle and that gained in the form of fat. This misunderstanding is held not only by the athlete but frequently by the coach and parents. Weight gaining programs for the younger athlete are often chosen by the athlete himself or suggested by his coach. Parents may suggest such programs in an attempt to help their child compete on an equal or a superior basis. Supplemental, extremely high-calorie feedings are consumed by the athlete. If successful, the only gain in body weight is fat. Muscle mass cannot be increased by eating more calories or by eating high-protein foods. The only way muscle mass can be increased is by exercise; if intensive physical training by the young adult is undertaken, recommended dietary allowances for protein are still sufficient to supply amino acids and other nutrients needed to gain weight by specific exercise techniques.[26]

For those who equate an increase in body weight with strength, a very strenuous eating program must be devised, because 1 lb of human fat contains approximately 3,500 Cal (about the same as contained in 1 lb of butter). To gain 1 lb of weight, therefore, an athlete must eat 3,500 Cal of food in excess of his normal requirements. An athlete who expends 3,500 Cal daily must eat 4,000 Cal each day to gain a pound of fat in 1 week.

Some data indicate that people who purposely gain weight actually must eat in excess of the quantity calculated above to gain weight and that they must continue to eat more than normal to maintain the weight.[27] In addition to adding body fat by the prodigious eating, the athlete establishes habits of eating and outlooks on food that tend to perpetuate excessive eating later in life. A trim person with neither abnormal eating habits nor increased numbers of fat cells can become obese merely by failing to decrease normal food intake as he grows older, even though he keeps exercise constant.[28] Calorie excess in a youngster may stimulate the formation of new fat cells, which increases the capacity to store fat and becomes a problem later in life. To perform best in sports, this unfortunate person therefore develops habits of increased food intake and risks the development of obesity that will create never-ending problems in later life. This weight-gain system is a paradox: On the athletic field, quality of performance is produced by the finely trained athlete who has decreased his total body fat, while at home or at the training table, the athlete is encouraged to increase his body fat by adopting an abnormal habit that has long-term unhealthy consequences.

Starvation. — Another food fad that is a problem in the field of nutrition and physical fitness is the starvation and semistarvation practices of young wrestlers. Starvation does more than dehydrate the body. Weight loss involves loss of protein, glycogen, potassium, sodium, phosphorus, sulfur, ribonucleic acid, enzymes, and other important cell constituents.[29] Fifty percent or more of the weight loss induced by total starvation involves fat-free protoplasm. The tissues that lose this protoplasm are those organs active in protein synthesis, such as liver, pancreas, small intestine, and muscle. The depletion of fat-free protoplasm is due to several mechanisms. With sudden starvation there is no dietary protein to meet daily requirements. Although the body responds to this change fairly promptly by decreasing the amount of protein synthesized, breakdown of protein continues at a rate almost equal to that when the athlete was eating. The starving athlete in training uses muscle tissue as a source of calories even more than does a starving person not in training. The body fat stores are so reduced in the highly trained athlete that he draws on his stores of protein.

Further, semistarvation coupled with a diet low in carbohydrate could, by producing ketosis and its associated dehydration, achieve a weight loss of 3 to 4 lb of water within 24 hours. Such procedures are used by athletes (or recommended by coaches) to achieve a lower weight classification. Often associated with this dietary practice is voluntary dehydration and salt deprivation. Dehydration from three sources — ketogenic diet, water deprivation, or salt deprivation — could lead to impairment of circulatory function and to poor athletic performance.

The result of these responses is diminished body reserve for athletic demands — and this more than offsets any advantage gained in competing in a lower body weight classification. Predictably, continuation of the starvation and semistarvation process over an entire season in the youthful competitor could affect the normal growth response. In the growing athlete, the state of continued undernutrition not only has decreased athletic performance but also, in an extreme example, has caused cessation of sexual development.[30]

Obesity. — Finally, one food fallacy in our society is that obese children eat more calories than do other children. Recently, we studied dietary records of 104 children to evaluate nutrient intake in thin, muscular, and fat children.[31] Twenty-four-hour nitrogen excretion in the urine was measured on the last day of the dietary record. Urinary nitrogen served as an indirect but objective index of the reliability of the record.[32] We found that daily intake was 1,625 Cal for thin children, 1,508 Cal for muscular children, and 1,690 Cal for fat children. Although some obese children ate 2,400 Cal/day, there were thin children who also ate the same number of calories. There were obese as well as thin children who ate 900 Cal/day. Obesity results when caloric intake is greater than caloric expenditure. Since the food intake of thin and obese children is similar, then expenditure must be less in obese children.

For a while it appeared that the new programs developed for girls in sports would serve to increase physical fitness in all girls. Both nationally and locally, however, the interest is primarily to develop women with the greatest potential for athletics and to have them compete on an equal basis with men. There is nothing wrong with this; in fact, it should be encouraged for those girls who have the physical capabilities. The programs, however, seem to be evolving on lines long-established for boys, in which most of the time and expense of the program is spent on a few gifted individuals. Presently, obese children are afforded little opportunity to participate in organized athletics. A major change in our present orientation in athletics and physical training is necessary to give the obese child developing in our society the best chance to obtain a normal body weight.

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President's Page

One day as the Little Red Hen was scratching in a field, she found a grain of wheat. "This wheat should be planted," she said. "Who will plant this grain of wheat?" "Not I," said the Duck. "Not I," said the Cat. "Not I," said the Dog.

If there is anything we should have learned in the last several years, it is that only in unity lies our real strength. Over two hundred years ago, Benjamin Franklin admonished his friends that "we had better hang together, or we shall certainly all hang separately," and this is no less true today. We are not in danger of being hanged for treason, but we are in danger of losing those liberties about which Franklin was talking. In our own State, we are emerging from a long and arduous battle in which we have found the value of unity. We have discovered many other political realities as well, but I hope we have demonstrated to ourselves and to our opponents and critics that we can indeed stand together when our profession is threatened. We need to carry this unity further, to the highest levels of organized medicine.

The American Medical Association has been criticized because of its emphasis on the political aspects of medicine and less on the scientific. Some would say that the AMA does no longer speak for the physician as a scientist and a practitioner of his art. They would say that the leaders of the American Medical Association are politicians, and that in scientific societies are found the real leaders of medicine. I cannot see that there is a conflict. Pressures emanating from the federal government have required an organization which can respond in the political arena.

It has become necessary to develop a leadership that can speak for all of medicine in what has become the real battlefield for survival. In years past, when American medicine rested almost entirely on the broad shoulders of the general practitioner and the science of medicine was far less important than the art of medicine, the American Medical Association was a necessary and proper society in which could be developed standards of practice and evaluation of physicians and the schools in which they were trained, as well as a forum for the presentation and critical evaluation of the practice of medicine. Scientific advances, with a corresponding specialization in medicine, have required the development of appropriate societies and academies. These societies have necessarily developed particular and special interests, some of which do indeed involve the political arena. An appropriate example is the involvement of the Academy of Pediatrics in child health concerns at the federal and state levels.

It is imperative that on a political level we stand united under the banner of the American Medical Association, and that there be no competition between the AMA and other medical organizations. Certainly, every physician, whether a practitioner of a full-time scientist and teacher, shares in the benefits of the political acitivity of the American Medical Association, as it has tried to hold off the devastating encroachment of socialism in health care.

We in medicine must identify leaders who can speak for us plainly, in language no politician can misunderstand. It is important that we give these leaders the benefit of our own thinking, expressed individually and in delegate assemblies. We must support those leaders in every way possible, through constructive criticism, by participation in programs which they develop, and by attendance at meetings where decisions will be made and implemented.

We can no longer afford the luxury of rugged individualism. Our strength lies in our numbers and especially in the status and prestige which our profession continues to enjoy. But we must be unified as we fight our political battles. How we will take care of our patients is rapidly becoming less an individual choice and more and more a political game. As we share in the victories gained by those who fight for us, let us be willing to share in the hard work so necessary to fight successfully.

Then she said, "Who will eat this bread?" "Oh! I will," said the Duck. "And I will," said the Cat. "And I will," said the Dog." . . .

Warren G. Bosley, M.D.
President

The Auxiliary

April 4-10, 1976 is National Rural Health Week. The theme "**Better Health — America's Wealth**" gives the Nebr. Medical Auxiliary a real purpose for their involvement. Together with the AMA and the AMA Auxiliary, we join national groups in promoting Rural Health Week. These groups are: The American Dental Association, The American Hospital Association, The American Veterinary Medical Association, The National Safety Council, The U.S. Department of Agriculture, and the U.S. Department of Health, Education, and Welfare.

The AMA will hold its 29th National Conference on Rural Health in Phoenix, Arizona April 7-9. This will add dimension to the national proclamation.

We will seek, as the Nebr. Medical Auxiliary, ways to respond to the needs of the rural communities by trying to inspire small communities to define the specific areas which need help or improvement. One of the more tangible ways of responding with action is the suggestion that every small town have a Community Health Council which can analyze community health problems and thus establish local priority needs. A mayor or schoolteacher, minister or farmer, physician or attorney can be a catalyst to start a council in a rural area. A group such as this can develop its own constitution, size of membership, etc., and can contribute much in meeting health needs in their own rural area.

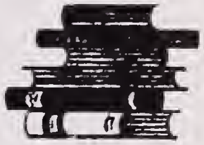
Farming is the third most dangerous occupation in America. In Nebraska we all read in our papers of tractor and other farm equipment accidents. 70% of highway fatalities occur in rural areas. What kind of emergency medical service is available in the rural communities of Nebraska? This is an area in which a Community Health Council can be most effective in answering a specific need.

The Nebraska Medical Auxiliary has many suggestions to offer any rural area auxiliary in ways they can be most useful in this special week of emphasis on rural health. We have a project bank available for anyone wishing to use this through our project bank coordinator, Mrs. Harriette Frances, Grand Island, Nebr. Here we can draw upon the experience and methods of other auxiliaries as their projects on rural health are spelled out in detail. We have a bibliography of publications, films, and programs which can be of much help also. These are available through Dorothy Matson, Community Health Chairman.

Centered on the theme "Improving the Quality of Rural Life Through Better Health," National Rural Health Week offers the Nebraska Medical Auxiliaries an opportunity to improve their personal health and that of their community. May this be a week of "zoning in," as it were, in recognizing just where rural Nebraska stands in relation to the health problems facing rural America.

Dorothy Matson,
Community Health Chrm.
Nebraska Medical Auxiliary

Books



Books reviewed.

Current medical diagnosis and treatment; by Marcus A. Krupp, M.D., Milton J. Chatton, M.D., and associate authors; 1062 pages; limp cover, $14.00; published 1976 by Lange Medical Publications, Los Altos, California.

This book has been coming out in a revised edition every year since 1962; last year's version had 1044 pages and cost 50 cents less; each edition has 33 chapters. CMD&T has always been a favorite of mine, and the 1976 book is no exception. There is a fine Appendix, with normal values and abbreviations, and an excellent Index. The print is easy to read, there are references, and plenty of tables.

The writing is good, the text is of course up-to-date, and the authors are specialists in their fields. Doctors Krupp and Chatton are Clinical Professors of Medicine at Stanford.

The book is well worth the price; as always, it is recommended.

—F.C.

Between Cases

The History.

History of asthma, not presently asymptomatic.

It Wasn't A Success.

Anesthesia was induced with halothane-nitrous oxide-oxygen by a nonbreathing technic.

No wonder.

O To Be In England.

They say malpraxis there.

Our Own Advice To Authors.

Manuscripts submitted to the Journal must be anopisthographic.

Quote Unquote.

We judge ourselves by what we feel capable of doing; others judge us by what we have done.

Longfellow.

Words I Can Do Without.

Futurology, mentation, inoperative, malfunction, relate to/underachiever, it is of interest.

Why.

If sphygmos means the pulse, why do we say sphygmomanometer for the thing we use to measure arterial blood pressure? We don't count the pulse with it.

O Right.

The anxious person regards every minor happening as a crisis.

Anon.

The Flu.

Here are some figures for the great influenza epidemic of 1918-1919.

	U.S.	World
Cases	20,000,000	200,000,000
Deaths	500,000	20,000,000

Good Question.

How do pills know where to go?

They Do.

Testes were performed.

On both sides?

Section On Anesthesiology.

Will Rogers is supposed to have said that the operation isn't so bad; the worst part is the gas you have to take beforehand.

Department Of French Doctors.

In my own sickness I have never found three doctors of the same opinion.

Montaigne.

How Women Age.

Menarche, puberty, nubility, prolegeron, menopause.

Quote Unquote.

Fat will grow on you.

Anon.

New Doctors.

55,818 medical students were enrolled in 114 U.S. medical schools for the academic year 1975-1976. That is a record, and it is an increase of 2,264 (4%) over the previous year.

Quote Unquote.

Every pond is Walden.

Merrifield.

On The Scientific Method.

An experimental table upon which a dog is fastened is one thing, and the bed of a patient is another.

Paul Bert.

Cole's Law.

Nobody ever won an argument.

Very Funny.

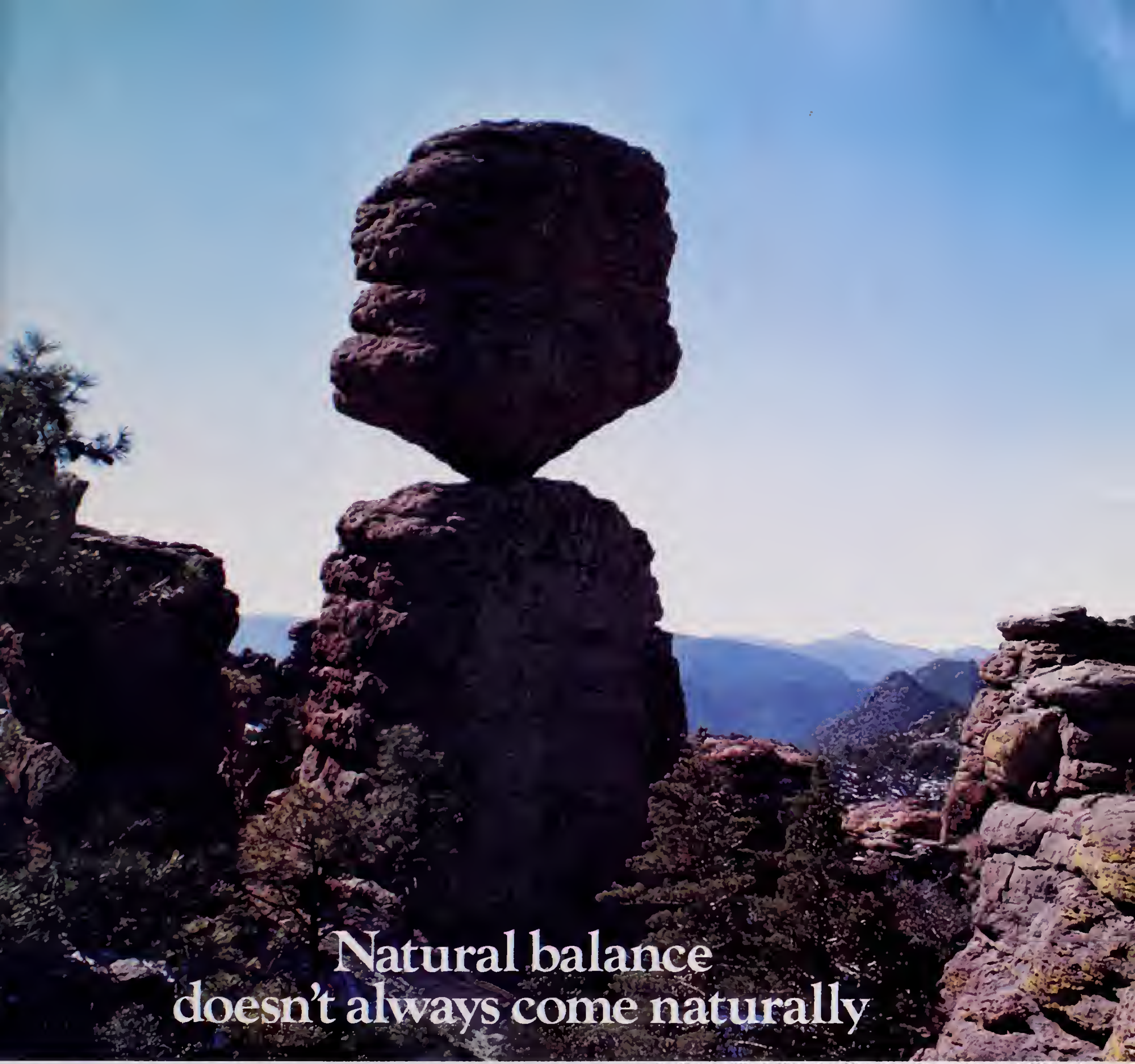
Masochist: Hit me.
Sadist: No.

Anon.

I Read It Somewhere.

The psychiatrist said that his most unusual patient was the one who showed no trace of any kind of neurosis.

—F.C.



Big Balanced Rock, Chiricahua Mountains, Arizona (approx. 1,000 tons)

ound useful in the management of vertigo* associated with eases affecting the vestibular system.

Can relieve nausea and vomiting often associated with vertigo.*

Jsual adult dosage for Antivert/25 for vertigo:* one tablet t.i.d.

Also available as Antivert (meclizine HCl) 12.5 mg. scored lets, for dosage convenience and flexibility.

Antivert/25 (meclizine HCl) 25 mg. *Chewable* Tablets for usea, vomiting and dizziness associated with motion sickness.

EF SUMMARY OF PRESCRIBING INFORMATION

NDICATIONS. Based on a review of this drug by the National Academy of iences—National Research Council and/or other information, FDA has classified e indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with otion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the stibular system.

Final classification of the less than effective indications requires further vestigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

ROERIG Pfizer
A division of Pfizer Pharmaceuticals
New York, New York 10017

Antivert®/25
(meclizine HCl) 25 mg. Tablets
for vertigo*

Effectiveness across the spectrum of most common forms of insomnia

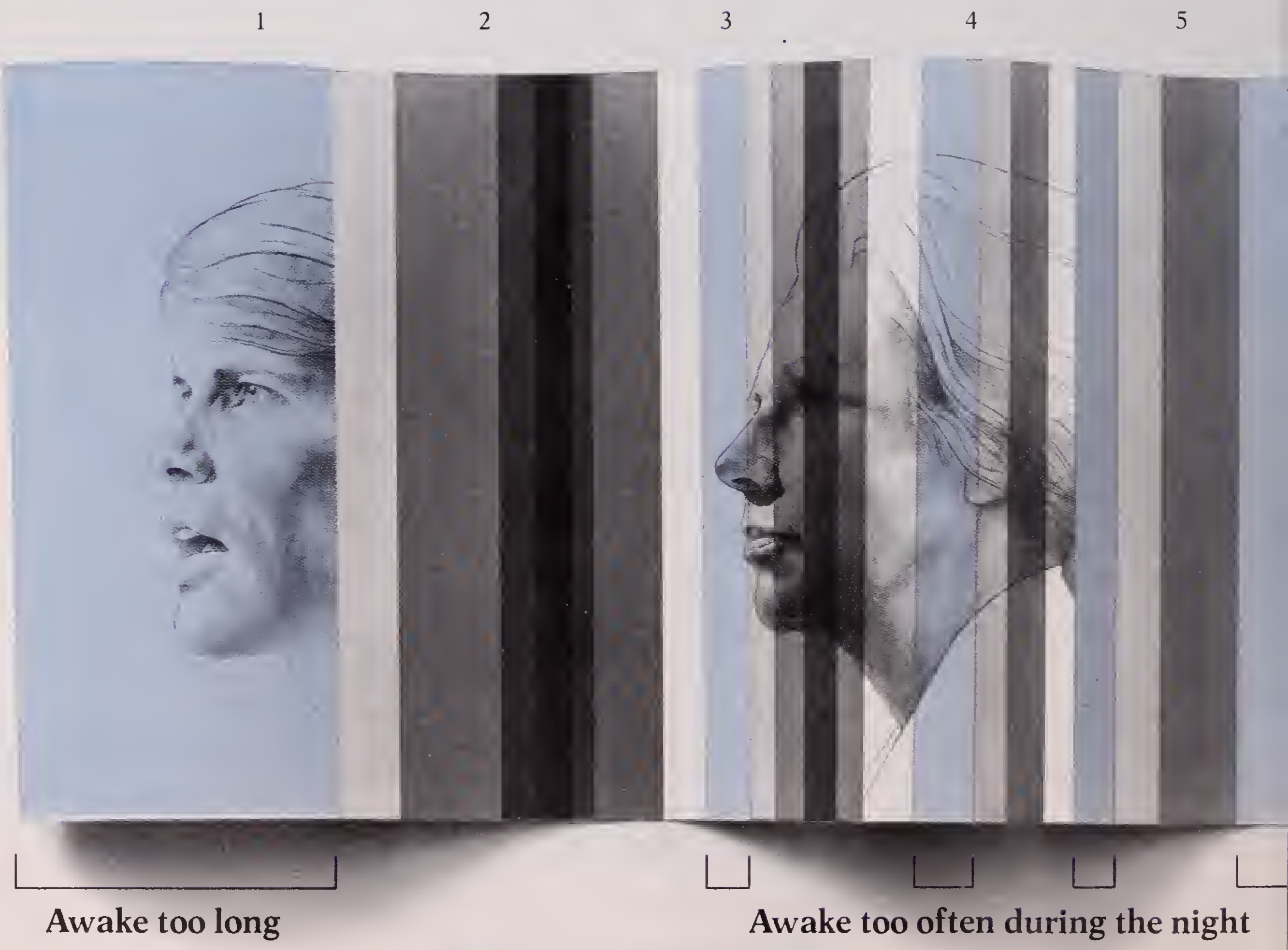
Awake too long, awake too often, awake too early...

These are the most common forms of insomnia, and may occur singly or in any combination. The night of troubled sleep depicted here comprises all three types. As the night progresses from left to right, each sleep stage is identifiable by its own shade of gray. Blue represents "Awake."

As you can see, this hypothetical "patient" takes well over an hour to fall asleep, awakens several times during the middle of the night and awakens too early in the morning.

Sleep Stages

▭	Awake	▨	Stage 2
▢	REM	▩	Stage 3
▭	Stage 1	■	Stage 4



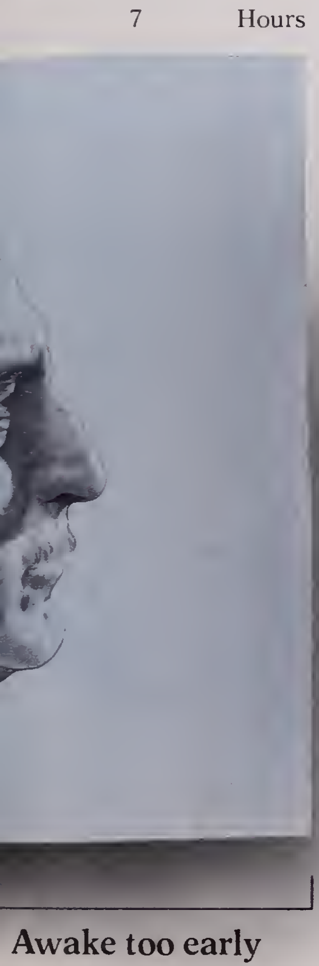
1
2
3
4
5
Awake too long
Awake too often during the night

The insomnias most often occurring in young and older adults

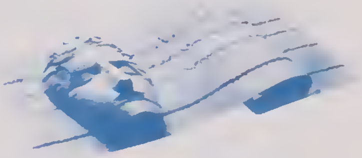
For patients with trouble falling asleep (common in young adult insomnia patients), Dalmane (flurazepam HCl) 30 mg provides sleep within 17 minutes, on average. For those with trouble staying asleep or sleeping long enough (common in those over 50), Dalmane offers increased total sleep time with fewer nocturnal awakenings. These clinical results were demonstrated in studies conducted in four geographically separated sleep research laboratories![1-4]

The relative safety of Dalmane (flurazepam HCl) is well documented

Dalmane (flurazepam HCl) is relatively safe and well tolerated; morning "hang-over" has been infrequent. The usual adult dosage is 30 mg; in elderly or debilitated patients, limit initial dosage to 15 mg to preclude over-sedation, dizziness or ataxia. Caution patients about possible combined effects with alcohol and other CNS depressants.



Broad-spectrum medication for the most common forms of insomnia



Dalmane®
(flurazepam HCl)

One 30-mg capsule *h.s.*— usual adult dosage
(15 mg may suffice in some patients).
One 15-mg capsule *h.s.*— initial dosage for elderly or debilitated patients.

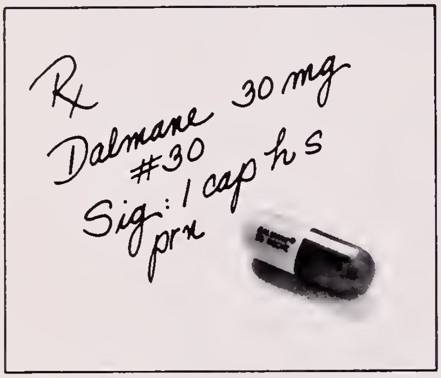
- ☐ induces sleep rapidly
- ☐ reduces nighttime awakenings
- ☐ lengthens total sleep time

ROCHE

Please see following page for a summary of complete product information.

Broad-spectrum medication for the most common forms of insomnia

Dalmane®
(flurazepam HCl) Ⓒ IV



Objectively proved in the sleep research laboratory, Dalmane

- ☐ induces sleep within 17 minutes, on average
- ☐ reduces nighttime awakenings
- ☐ provides 7 to 8 hours sleep, on average, without repeating dosage

Before prescribing Dalmane (flurazepam HCl), please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum beneficia effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

REFERENCES:

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2. Frost JD Jr: A system for automatically analyzing sleep. Scientific exhibit at the 24th Clinical Convention of the American Medical Association, Boston, Nov 29-Dec 2, 1970; and at the 42nd annual scientific meeting of the Aerospace Medical Association, Houston, Apr 26-29, 1971
3. Vogel GW: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ
4. Dement WC: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ

ROCHE

ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Our Medical Schools

At the U of N Medical Center.

1. An internationally known pediatric urologist will be a lecturer at a course at the University of Nebraska Medical Center on April 14, 1976.

J. Herbert Johnston brings to the program on pediatric urology a vast experience: editor of two books, author of numerous chapters and articles, Hunterian Lecturer of the Royal College of Surgeons of England, and Latimer Lecturer of the Society for Pediatric Urology. Dr. Johnston is currently a surgeon at the Alder Hey Children's Hospital in Liverpool, England.

Also a guest speaker is Dr. C. Thomas Aceto, Jr., professor and chairman of the department of pediatrics and adolescent medicine at the University of South Dakota School of Medicine.

The registration fee of $30 includes coffee and lunch.

The program is acceptable for ten prescribed hours by the American Academy of Family Physicians and meets the criteria for six hours of credit in Category I for the Physicians Recognition Award of the American Medical Association.

Course coordinators are Drs. Francis Bartone, chairman of the department of urology, and Hobart Wiltse, acting chairman of the department of pediatrics, at the University of Nebraska Medical Center.

2. "Rationale for Adult Aphasia Therapy" will be offered on April 8 and 9, 1976.

Guest faculty includes Dr. Robert H. Brookshire, director, aphasia section, Veterans Administration Hospital, Minneapolis; Dr. Jon Eisenson, Distinguished Professor of Special Education and Director Scottish Rite Institute for Childhood Aphasia, San Francisco State University; Dr. Audrey L. Holland, associate professor of speech pathology, University of Pittsburgh; Dr. Christy Ludlow, speech pathologist, National Institute of Neurological and Communicative Disorders and Stroke; Dr. Alan Rubens, chief, aphasia unit, Hennepin County Medical Center; Dr. Linda Swisher, director of speech and language clinics, Northwestern University; and Dr. Robert T. Wertz, chief, pathology and audiology, Veterans Administration Hospital, Madison, Wisconsin.

Registration fee of $100 includes coffees, lunches, and a dinner-theater.

Marsha Sullivan, coordinator of speech pathology at the University of Nebraska Medical Center, is course coordinator.

The program is acceptable for ten prescribed hours by the AAFP and meets the criteria for 10 hours of credit in category I for the Physician's Recognition Award of the AMA.

3. Dr. John W. Rebuck will deliver the annual Alpha Omega Alpha lecture at the Medical Center on April 28, 1976, at noon in Wittson Hall. Dr. Rebuck is a 1935 graduate of Creighton University, who is now chief of the division of laboratory hematology at Henry Ford Hospital, Detroit. Dr. Rebuck earned M.A., M.B., M.D., and Ph.D. degrees from the University of Minnesota.

Creighton AOA elects.

As we go to press, the Creighton University chapter of Alpha Omega Alpha Honor Medical Society was to hold its annual initiation banquet at the Omaha Club on March 2nd.

Seventeen junior and senior students from the Creighton School of Medicine have been elected to membership. Also inducted will be a faculty nominee, Dr. Frank M. Shepard, Professor and Chairman of the Department of Pediatrics.

Creighton alumni nominees include: Dr. Dwaine J. Peetz, an associate professor of surgery currently practicing in Neligh, Nebraska; Dr. Robert R. Recker, associate professor of medicine at Creighton; and Dr. Robert G. Townley, professor of medicine at Creighton.

Alpha Omega Alpha is the medical school equivalent of Phi Beta Kappa. Only students ranking in the upper 25% of their class are eligible for membership.

The alumni and faculty nominees are chosen in recognition of their contributions to American medicine and their service to the Creighton School of Medicine.

Student nominees and their hometowns are: (Juniors) Dewey J. Conces, Jr., Munster, Illinois; Haywood S. Gilliam, Omaha; Michael A. Gordon, Roslyn, New York; James L. Vacek, Bellevue, Nebr.; (Seniors) James E. Clayton, Modesto, Calif.; Karen E. Fallis, Whitestone, New York; Patrick H. Garvin, Chinook, Washington; Alexander M. Lerner, Forest Hills, New York; Thomas J. O'Connor, Moline, Illinois; David B. Owens, Kansas City, Missouri; Corrine F. Quinn, Omaha; Timothy T. Quinn, Spokane, Washington; Ronald L. Renard, Monterey, Calif.; James A. Snyder, Minneapolis, Minn.; Taylor C. Weatherbee, Windsor Locks, Conn.; Thomas G. Wiseley, Missoula, Montana; Mary (Barnett) Zahller, Sioux Falls, South Dakota.

Cardiovascular Center, U of N Medical Center.

Second annual Tutorials in the Tetons: Cardiac Emergencies, to be held at Jackson Lake Lodge, Grand Teton National Park on August 28-30, 1976. The initial course last year was well received and oversubscribed, and we anticipate that this course will be filled by April 1, 1976.

Welcome New Members

David C. Babbitt, M.D.
University of Nebraska Medical Center
Omaha, Nebraska 68105

Ernest Beehler, M.D.
4009 Avenue B, #2-C
Scottsbluff, Nebraska 69361

Paul D. Boschult, M.D.
Radiology Department
University Hospital
Omaha, Nebraska 68105

Robert A. Chesnut, M.D.
Student Health Center
University of Nebraska
Lincoln, Nebraska 68508

Leon F. Davis, D.D.S., M.D.
University of Nebraska Medical Center
Omaha, Nebraska 68105

Robert D. Graupner, M.D.
1620 Buckingham Drive
Lincoln, Nebraska 68520

Robert Hanlon, M.D.
Crawford
Nebraska 69339

Harvey A. Konigsberg, M.D.
307 Medical Arts Building
Omaha, Nebraska 68102

Jiri Karel Lukas, M.D.
600 North Cotner
Lincoln, Nebraska 68505

Daniel H. Mathers, M.D.
719 Doctors Building
Omaha, Nebraska 68131

Robert F. Park, M.D.
214 West 25th Street
Kearney, Nebraska 68847

Michael T. Petersen, M.D.
4339 North 65th Street
Omaha, Nebraska 68104

Down Memory Lane

1. Supervision of child health is, or should be, primarily in the hands of the physician — the family doctor.

2. I don't know of a city in the United States that needs a county and city hospital quite as badly as Omaha.

3. The Woman's Auxiliary to the State Medical Association now has 178 members.

4. Every patient presenting the symptom glycosuria should be considered a diabetic until proven otherwise, but no time should be lost in proving or disproving the presence of a true diabetes, for great harm may be done the patient by delay.

5. Do we examine children or do we give them the "once-over?"

6. You will laugh but I want to tell you this: The best medical building is going to be built in Omaha.

7. *Heretofore the enthusiastic and emphatic author has not been able in this Journal to express himself in italics. He may now do so.*

8. Whether civilization is to continue progressing, or whether it will stagnate a while and then recede or tumble into ruin, depends quite directly upon the thoroughness and efficiency of our own humble medical profession.

9. Great interest has been shown in the subject of glycosuria, in the last ten years, more particularly since the discovery of Insulin.

10. A specific organism universally accepted as the cause of rheumatic fever has not yet been isolated.

Nebraska State Medical Journal
April, 1926.

Medicinews

HEW proposes new regulations.

The Department of Health, Education, and Welfare has proposed regulations increasing the dollar amounts people can earn and still be considered disabled for purposes of receiving social security and supplemental security income disability checks.

The proposed regulations raise the monthly earnings guidelines to be used by the Social Security Administration in 1976 to determine when work by a disabled beneficiary is considered "substantial gainful activity." Under the law, a person able to perform substantial gainful activity is not eligible to receive monthly disability benefits.

The proposed regulations would:

— Increase from $200 to $230 monthly the earnings guide for determining when work is substantial gainful activity. When a person works for average monthly earnings greater than $230 he ordinarily would be considered able to engage in substantial gainful activity.

— Provide that if a person's earnings average between $150 and $230 per month, the nature of the person's work activities and the medical evidence relating to his condition will be considered in determining whether the individual is eligible for disability benefits. The current range is $130 to $200.

— Increase from $130 to $150 a month the amount of average monthly earnings that ordinarily will not be considered "substantial gainful activity."

The proposed regulations also provide for a systematic adjustment of these earnings guidelines on the basis of yearly changes in the average taxable earnings of all persons reported under the Nation's social security system.

These guides apply only to disabled

claimants and beneficiaries under social security and supplemental security income. They do not apply to retired workers, survivors, or dependents. Earnings limitations for these beneficiaries are set by other provisions in the social security law.

Heart workshop in Kansas City, Mo.

The April 9-10, 1976, Long Weekend program, sponsored by the School of Medicine and the Division for Continuing Medical Education of the University of Missouri-Kansas City, the Kansas City Southwest Clinical Society, and the Academy of Health Professions will be a Clinical Electrocardiography and Physical Examination of the Heart Workshop. The meeting will be held at the Alameda Plaza Hotel and the University of Missouri-Kansas City School of Medicine, Kansas City, Missouri.

The preceptors will be Robert D. Conn, M.D., Clinical Professor, and Hubert H. Bell, M.D., Clinical Associate Professor and Docent, University of Missouri-Kansas City School of Medicine.

A separate spouses' program will be presented on Sleep Research and A Way of Seeing Yourself.

The Long Weekend programs are accredited for 11 credit hours in Category I for the Physicians' Recognition Award of the American Medical Association and 11 prescribed hours by the American Academy of Family Physicians. The University of Missouri will offer 1.1 Continuing Education Units (CEUs) to registrants of these courses.

These postgraduate sessions are limited to forty physicians and their spouses. For complete program and registration information, contact:

The Long Weekend
University of Missouri-Kansas City
School of Medicine
2220 Holmes Street
Kansas City, Missouri 64108
Phone: 816/471-3876

WashingtoNotes

Medicare.

Opposition to the Administration's proposals to change Medicare appears to be almost universal. The AMA Association, the American Hospital Association, the AFL-CIO, and the National Council of Senior citizens are among many organizations that have joined in assailing the President's proposal.

The Administration has asked Congress to approve a new catastrophic benefit for Medicare coupled with much higher cost-sharing, to impose percentage "caps" on Medicare reimbursement for hospitals and physicians, and to change Medicaid into a block grant program for the states.

The House Ways and Means Health Subcommittee, headed by Rep. Dan Rostenkowski (D-Ill.), chaired three days of hearings as the Ford proposal was intended to take effect in March and Congressional approval was necessary.

Rostenkowski chided the Administration for seeking early enactment without being able to provide Congress with a legislative proposal by the time hearings started. From the tone of Rostenkowski and other Subcommittee members in their questioning, there seems little chance of the proposal getting anywhere.

Raymond T. Holden, MD, Chairman of the AMA Board of Trustees, said "The proposed changes would not only be impractical, but would also be inherently unfair to all parties concerned. Unfortunately, the unfairness would be especially hard upon the beneficiaries of the Medicare program."

"If the limitations were imposed, some health facilities could face bankruptcy," Dr. Holden said. "The patient will pay more, and the federal government will again have promised a broad program while seeking to limit payment for the care received. Under the guise of holding down costs to the federal government, the costs would, in fact, be increased to patients. The federal government must realize that once a program is legislated the service does not become free. But that, as with services generally, payment must be provided. In this instance we believe that it is unconscionable on the part of the Administration to shift costs to the beneficiary under the pretense of trying to limit the costs of the program to the federal government."

Bert Seidman, Director of the AFL-CIO Social Security Department, said Labor was "dismayed" by the Administration's recommendations, which he declared would "create a most serious barrier to health care for the elderly." Seidman argued that the proposed reimbursement controls on hospitals and physicians would simply shift the financial load to non-Medicare patients in hospitals and result in fewer physicians accepting the assignment.

National health insurance (1).

The sounds of a catastrophic-only national health insurance plan for this year still reverberate through Senate halls.

Senate Majority Leader Mike Mansfield (Mont.) and Republican Leader Hugh Scott (Pa.) recently agreed during a joint television appearance on backing catastrophic and on predicting it has a good chance of clearing Congress this year.

Chief Congressional sponsor of a catastrophic-oriented plan, Sen. Russell Long (D-La.), said that he believes Congress will approve his bill this session. Congress will go beyond what President Ford recommended in the way of catastrophic benefits for Medicare beneficiaries, Long said, and extend the concept to all Americans.

National health insurance (2).

The Administration has told Congress it won't propose a national health insurance (NHI) program until the economy brightens. However, Health Education and Welfare Secretary David Mathews has conceded the plan — when submitted — will be close to the Nixon Administration so-called CHIP plan mandating comprehensive private health insurance coverage to be offered by employers.

Mathews appeared before the House Commerce Subcommittee on Health as it opened the 1976 hearings on NHI. Under questioning from Subcommittee Chairman Paul Rogers (D-Fla.) Mathews said CHIP remains the basic Administration NHI plan and that proposing it "is a matter of timing."

Laboratories.

A Senate report charges that some clinical laboratories involved in Medicaid have operated on a kickback basis with physicians and clinics.

Chairman Frank Moss (D-Utah) of the Senate Special Committee on Aging said the report "concludes that, at least in the states which came under investigation, kickbacks are widespread among labs specializing in Medicaid business. In fact, it appears necessary to give a kickback to secure the business of physicians or clinics who specialize in the treatment of welfare patients."

The report focussed on Illinois. Other states mentioned were New York, New Jersey, Michigan, California, and Pennsylvania.

A staff witness told the Committee at a hearing that the staff estimates that at least $45 million of the $213 million Medicare-Medicaid payments to clinical laboratories is either fraudulent or unnecessary. Average kickback was 30 percent of the lab's charge, the report estimated.

The report says a small number of labs control the Medicaid business in the involved states. In New York, according to the report, 17 facilities control 70 percent of the Medicaid business; in New Jersey, 12 labs control nearly 60 percent of Medicaid payments; in Illinois, 26 labs handle over 90 percent of the volume.

In response to numerous press queries

generated by the Committee's report including a filmed version of the charges carried nationally by CBS's program "Sixty Minutes," Max H. Parrott, MD, AMA President, made the following statement:

"I would remind physicians and the public alike that the AMA code of Ethics is very clear on the matter of laboratory charges.

The physician's ethical responsibility is to provide his patients with high quality services. As a professional man, the physician is entitled to fair compensation for his services. But he is not engaged in a commercial enterprise and he should not make a markup, commission or profit on the services rendered by others.

If after due process a physician is found to have violated the Code of Ethics in this or any other respect, he is fully liable for whatever professional penalties may be imposed, in addition to whatever penalties may be imposed by law."

New dictionary.

Staff of the House Commerce Health Subcommittee has prepared a dictionary designed to steer lawmakers through the maze of terms — medical, legal, and federal — involved in an intelligent discussion of national health insurance.

The 183-page document also will help physicians who have dealings with the federal government and Congress. It contains concise definitions of most of the pertinent legal and governmental terms and acronyms flavored with a touch of whimsy.

In an introduction, Subcommittee Chairman Paul Rogers (D-Fla.) said the developing debate on NHI ("a term not yet defined in the United States") employes a "bewildering array of new and unfamiliar terms." He described the dictionary as "the first reasonably complete dictionary of terms relevant to the consideration of NHI and health care available."

Skipping through the document one finds definitions of such terms as triage, trolley car policy (benefit for injuries only when hit by a trolley car), slip law, respondeat superior (employers liability for malpractice of an employee), ping-ponging (passing patients from one physician to another), halo effect, gork, chainside, and backdoor authority.

Put together by Lee Hyde, MD, professional staff member of the Commerce Health Subcommitteee, the dictionary is available in limited quantities on written request (please enclose a self-addressed envelope) to:

Interstate and Foreign Commerce
Committee
2125 Rayburn House Office Building
Washington, DC 20515

Your social security number.

The Health Education and Welfare Department has been accused of attempting a shocking invasion of privacy in proposing to collect social security number identification of hospitalized patients and their physicians.

The AMA told HEW that "In this age of great concern over the right of privacy on the part of all citizens in our country, we are shocked that a federal department would now formally propose to establish a mechanism by which most physicians and every hospitalized Medicare, Medicaid, and Title V recipient could be classified, identified, matched, compared, reviewed, and computerized with the impersonal ease of electronic machines."

The social security information would be part of the data collected by the Dept. for Uniform Hospital Discharge Abstract (UHDA) for federal medical programs. Purpose is to gather and coordinate statistical information which also could be used by planning bodies, accrediting organizations, hospitals, and private third-party payors.

I Remember

HOW WE LISTENED TO DR. ADLER

It was our senior year in medical school, and our dean or somebody had bagged Dr. Adler, of the Freud-Jung-Adler trio to talk to us once a week. It was a privilege to listen to the great man, and our class was well attended by students and by visitors from far and near. I can still remember him.

And I can hear him now. He spoke to us in English, of course, but if it was English that went in, it was Viennese that came out, and we could understand very little.

One thing that we could understand was a phrase he used over and over again: it sounded like die soul and die psyche. I am not sure that that was what he said, but that is what we thought he was saying. We came to the lecture because we were required to, and because he was a celebrity, and we could not bring ourselves to stay away. And to keep our interests alive and to be doing something, while we were vainly trying to understand him and to follow his lecture, we hit upon this devilish idea.

Each of us paid ten cents to the inventor of the scheme (guess who), and each was assigned a number. Then we sat there with pads and pencils, and we all counted the number of times he said die soul und die psyche. And if it was your number, you won the pot.

Dr. Adler must have thought we were a studious group, with our note-taking. But like the slate-chalking in Meistersinger, I think, our pencils all came down at the same time, whenever the magic phrase was heard.

Well, it kept us going. We did go to the lectures, and we listened. I hesitate to recommend our attention-holding device to others, but it worked for us.

—F.C.

The Letter Box

Dear Dr. Cole:

I always enjoy the Journal and especially your very personal contributions. This year, while on a special project in Washington, I have enjoyed it even more. It's the one real thread that keeps me informed about medicine in Nebraska. More importantly, I appreciate even more acutely all of your personal experiences, anecdotes, and words of wisdom. In the latter, I especially enjoyed, "The Will to Fail," which I thought was a thoroughly delightful little essay.

I'll be back in Nebraska soon!

Most sincerely,
Joseph C. Shipp, M.D.
Deputy Director
Department of Health Services,
Association of American
Medical Colleges
Professor and Chairman,
Department of Internal Medicine
Nebraska Medical Center

Coming Meetings

CRIPPLED CHILDREN'S CLINICS —
- April 3 — Broken Bow, Elks Lodge
- May 1 — Hartington, Trinity Lutheran Church
- May 8 — North Platte, Elks Lodge
- May 15 — Ainsworth, Elementary Grade School

NEBRASKA MEDICAL ASSOCIATION — Annual Session, May 2-5, 1976, Holiday Inn, Kearney, Nebraska.

AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 26 - July 1, 1976, Dallas, Texas.

NEBRASKA MEDICAL ASSOCIATION FALL SESSION — September 30 — October 1 & 2, 1976, Lincoln Hilton Hotel, Lincoln, Nebraska.

AMERICAN MEDICAL ASSOCIATION — 30th Clinical Convention, December 4-8, 1976, Philadelphia, Pennsylvania.

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MAKES SENSE

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FOR LONG-TERM CONTROL OF HYPERTENSION*

*Serum K+ and BUN should be checked periodically. (See Warnings Section.)

efore prescribing, see complete prescribing in-
ormation in SK&F literature or *PDR*. The fol-
wing is a brief summary.

Warning
This fixed combination drug is not indi-
cated for initial therapy of edema or hyper-
tension. Edema or hypertension requires
therapy titrated to the individual patient. If
the fixed combination represents the dosage
so determined, its use may be more convenient
in patient management. The treatment of
hypertension and edema is not static, but
must be reevaluated as conditions in each
patient warrant.

dications: *Edema:* That associated with con-
estive heart failure, cirrhosis of the liver, the
ephrotic syndrome; steroid-induced and idio-
athic edema; edema resistant to other diuretic
erapy. *Mild to moderate hypertension:* Useful-
ess of the triamterene component is limited to
s potassium-sparing effect.

ontraindications: Pre-existing elevated serum
otassium. Hypersensitivity to either component.
ontinued use in progressive renal or hepatic
sfunction or developing hyperkalemia.

**arnings: Do not use dietary potassium supple-
ents or potassium salts unless hypokalemia
evelops or dietary potassium intake is markedly
npaired.** Enteric-coated potassium salts may
use small bowel stenosis with or without
ceration. Hyperkalemia (>5.4 mEq/L) has
been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, **check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently**—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

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108TH
ANNUAL SESSION

THE
NEBRASKA MEDICAL ASSOCIATION

MAY 2-5
1976

★ ★ ★

HOLIDAY INN
KEARNEY

THINGS YOU SHOULD KNOW

This program is acceptable for 8¼ elective hours by the American Academy of Family Physicians.

REGISTRATION — Lobby, Holiday Inn of Kearney, 8:00 a.m., Tuesday and Wednesday, May 4 and 5, 1976.

GENERAL SESSIONS — Harvest Rooms A & B, Holiday Inn of Kearney.

OF SPECIAL INTEREST

MEDICINE AND RELIGION DINNER — Sunday, May 2, 7:00 p.m., Harvest Room A, Holiday Inn of Kearney. "Middle Age — A Disease Most Physicians Have," Chaplain Al E. Anderson, Director of Chaplaincy Services at Immanuel Medical Center in Omaha, Nebraska. John C. Goldner, M.D., Chairman.

ATHLETIC MEDICINE LUNCHEON — Tuesday, May 4, 12:00 noon, Harvest Rooms A & B, Holiday Inn of Kearney. "The Little Leaguer," Mr. Robin Roberts of Fort Washington, Pennsylvania, Former Philadelphia Phillies Pitcher and Member of the Baseball Hall of Fame. John E. Murphy, M.D., Chairman.

PRESIDENT'S RECEPTION — Honoring the President of the Nebraska Medical Association and the President of the Nebraska Medical Association Auxiliary. Tuesday, May 4, 6:00 p.m., Main Dining Room, Holiday Inn of Kearney.

FUN NIGHT — A superb dinner followed by The Al Fike Show and featuring Dan Bashor. Tickets $15.00 per person. The President's Reception will immediately precede the dinner. Tuesday, May 4, 7:00 p.m., Harvest Rooms A & B, Holiday Inn of Kearney. Joel T. Johnson, M.D., Chairman.

PAST PRESIDENT'S BREAKFAST — Wednesday, May 5, 7:00 a.m., Room 200, Holiday Inn of Kearney.

ANNUAL DISTINGUISHED LUNCHEON — Installation of New Officers. Presidential Address. Recognition of Fifty-Year Practitioners. Guest speaker, Mr. Merrill J. Mattes, noted author of THE GREAT PLATTE RIVER ROAD. Wednesday, May 5, 12:00 noon, Harvest Rooms A & B, Holiday Inn of Kearney.

SPORTSMAN'S DAY ACTIVITIES

Hiram R. Walker, M.D., General Chairman

SPORTSMAN'S DAY LUNCHEON — Kearney Country Club, West Highway 30, Kearney, Monday, May 3, 11:30 a.m. Participation by preregistration only. William M. Vosik, M.D., Chairman.

GOLF TOURNAMENT — Kearney Country Club, West Highway 30, Kearney, Monday, May 3. Shotgun Tee Off, 1:00 p.m. Participation by preregistration only. Richard D. Johnson, M.D., Chairman.

TENNIS — Kearney Country Club (West Highway 30, Kearney) & Harmon Park (33rd & 5th Avenue, Kearney), Monday, May 3, 1:00 p.m. Participation by preregistration only. John H. Bancroft, M.D., Chairman.

CANOE TRIP — Odessa to Kearney (Meet at Kearney Country Club, West Highway 30, Kearney), Monday, May 3, 1:00 p.m. Participation by preregistration only. James W. Peck, M.D. and Ron D. Scott, M.D., Co-Chairmen.

SPORTSMAN'S ANNUAL AWARD DINNER — Kearney Country Club, West Highway 30, Kearney, Monday, May 3. Social Hour at 5:30 p.m., Robert D. Sidner, M.D., Chairman. Sportsman's Annual Award Dinner at 6:30 p.m., Dan A. Nye, M.D., Chairman.

ANCILLARY MEETINGS

AMERICAN COLLEGE OF SURGEONS, NEBRASKA CHAPTER, ANNUAL BUSINESS MEETING — Sunday, May 2, 5:00 p.m., Persimmon Room, Holiday Inn of Kearney.

UNIVERSITY OF NEBRASKA PRECEPTOR BREAKFAST — Tuesday, May 4, 7:30 a.m., Persimmon Room, Holiday Inn of Kearney.

UNIVERSITY OF NEBRASKA COLLEGE OF MEDICINE ALUMNI MEETING AND SOCIAL HOUR — Tuesday, May 4, 4:15 p.m., Colonial Room, Holiday Inn of Kearney.

Officers

WARREN G. BOSLEY, M.D.

President 1975-1976

HARLAN L. PAPENFUSS, M.D.

President 1976-1977

President

Warren G. Bosley, M.D., Grand Island	1975-1976
Harlan L. Papenfuss, M.D., Lincoln	1976-1977

Secretary-Treasurer

Russell L. Gorthey, M.D., Lincoln	1978

Editor

Frank Cole, M.D.	Lincoln

Executive Secretary

Kenneth E. Neff	Lincoln

Board of Councilors

District		Term Expires
1.	Carlyle E. Wilson, Jr., M.D., Omaha	1978
2.	Louis J. Gogela, M.D., Lincoln	1978
3.	H. C. Stewart, M.D., Pawnee City	1978
4.	James G. Carlson, M.D., Verdigre	1978
5.	Robert M. Sorensen, M.D., Fremont	1976
6.	Houtz G. Steenburg, M.D., Aurora	1976
7.	Lyle H. Nelson, M.D., Crete	1976
8.	A. Dean Gilg, M.D., Bassett	1976
9.	Hiram R. Walker, M.D., Kearney	1977
10.	Fred J. Rutt, M.D., Hastings	1977
11.	Berl W. Spencer, M.D., Ogallala	1977
12.	Calvin M. Oba, M.D., Scottsbluff	1977

Chairman, Board of Councilors

Houtz G. Steenburg, M.D., Aurora	1976

Speaker, House of Delegates

Harry W. McFadden, Jr., M.D., Omaha	1977

Vice Speaker, House of Delegates

Charles W. Landgraf, Jr., M.D., Hastings	1977

Delegates to AMA

John R. Schenken, M.D., Omaha	1976
C. J. Cornelius, Jr., M.D., Sidney	1977

Alternate Delegates to AMA

John D. Coe, M.D., Omaha	1976
Louis J. Gogela, M.D., Lincoln	1977

Delegate to North Central Medical Conference

Russell L. Gorthey, M.D., Lincoln	1976

Board of Directors

Charles F. Ashby, M.D., Geneva, Chairman	1976
Dwight W. Burney, Jr., M.D., Omaha	1977
Robert B. Benthack, M.D., Wayne	1978
Robert J. Morgan, M.D., Alliance	1979
Russell L. Gorthey, M.D., Lincoln	

Announcements

House of Delegates

First Session:	Sunday, May 2, 1976, 1:00 p.m., Harvest Rooms A & B
Second Session:	Monday, May 3, 1976, 8:00 a.m., Harvest Rooms A & B
Third Session:	Wednesday, May 5, 1976, 7:30 a.m., Harvest Rooms A & B

Board of Councilors

First Session:	Sunday, May 2, 1976, 11:00 a.m., Colonial Room
Second Session:	Monday, May 3, 1976, 11:00 a.m., Colonial Room

Board of Directors

Tuesday, May 4, 1976, 7:30 a.m., Club Continental

Nominating Committee

First Session:	Monday, May 3, 1976, 10:30 a.m., Room 200
Second Session:	Tuesday, May 4, 1976, 11:15 a.m., Room 200
Third Session:	Tuesday, May 4, 1976, 4:15 p.m., Room 200

Acknowledgements

The Nebraska Medical Association takes this opportunity to recognize and express its appreciation for the grants received from the following organizations:

Bristol Laboratories
Division of Bristol-Myers Company

American Cancer Society —
Nebraska Division, Inc.

Pharmaceuticals Division
Ciba-Geigy Corporation

Eli Lilly and Company

Merck Sharp & Dohme
Postgraduate Program

Mutual of Omaha

Nebraska Medical Foundation, Inc.

A. H. Robins Company

Smith Kline & French Laboratories

Scientific Sessions Committee

Joel T. Johnson, M.D., Chairman	Kearney
Richard A. Cottingham, M.D.	McCook
Randolph M. Ferlic, M.D.	Omaha
Russell L. Gorthey, M.D.	Lincoln
Y. Scott Moore, M.D.	Lincoln
Jerry A. Reed, M.D.	Lincoln
Robert M. Stryker, M.D.	Omaha

Technical Exhibitors

Abbott Laboratories, North Chicago, Illinois

American Cancer Society — Nebraska Division, Inc., Omaha, Nebraska

Blue Cross and Blue Shield of Nebraska, Omaha, Nebraska

COCA-COLA USA, Chicago, Illinois

Cooper Laboratories, Inc., Parsippany, New Jersey

Dairy Council of Central States, Inc., Omaha, Nebraska

Donley Medical Supply Company, Lincoln, Nebraska

Dorsey Laboratories, Lincoln, Nebraska

International Medical Electronics, Ltd., Kansas City, Missouri

Mallinckrodt, Inc., Hazelwood, Missouri

National Foundation — March of Dimes, Lincoln, Nebraska

Nebraska Department of Health, Lincoln, Nebraska

NMA® Subcommittee on Athletic Injuries, Lincoln, Nebraska

Professional Credit Control Inc., Lincoln, Nebraska

Roche Laboratories, Nutley, New Jersey

St. Paul Fire and Marine Insurance Company, St. Paul, Minnesota

Sandoz Pharmaceuticals, East Hanover, New Jersey

Scientific Products Division of American Hospital Supply Corporation, North Kansas City, Missouri

Social Security Disability, Lincoln, Nebraska

E. R. Squibb & Sons, Princeton, New Jersey

Stat Medical, Inc., Grand Island, Nebraska

Summit Medical Distributors, Inc., Lee's Summit, Missouri

United States Navy Medicine, Omaha, Nebraska

PROGRAM

SUNDAY EVENING, MAY 2, 1976

7:00 **MEDICINE AND RELIGION DINNER — Harvest Room A**

Sponsored by the NMA Medicine and Religion Committee
John C. Goldner, M.D., Chairman

Presiding —

Warren G. Bosley, M.D., Grand Island
NMA President

Speaker —

"Middle Age — A Disease Most Physicians Have"

Chaplain Al E. Anderson
Director of Chaplaincy Services
Immanuel Medical Center
Omaha, Nebraska

Chaplain Al E. Anderson

Omaha, Nebraska

Chaplain Anderson attended the University of Minnesota in Duluth and the Luther Theological Seminary in St. Paul, Minnesota. Since 1965, he has been Director of Chaplaincy Services at Immanuel Medical Center in Omaha. In the past five years, over 100 theological students and ministers have taken at least one quarter of Clinical Training in the year-round program he conducts at Immanuel Medical Center.

PROGRAM

TUESDAY MORNING, MAY 4, 1976

Arnold Silverman, M.D.
Denver, Colorado

Doctor Silverman graduated from the University of Colorado School of Medicine in 1961. He served a straight internship in pediatrics at Colorado General Hospital and as a pediatric resident at the University of Minnesota Hospitals. He currently serves as Clinical Professor, Department of Pediatrics, University of Colorado Medical Center, and as Director of Pediatric Service, Denver General Hospital.

William Carl Bailey, M.D.
Denver, Colorado

Doctor Bailey graduated from Wayne State University School of Medicine in 1952. He took residency training in general surgery at the University of Michigan, University Hospitals and pediatric surgery at Children's Hospital, Columbus, Ohio, and Ohio State University Hospitals. He currently serves as Interim Chief of Surgery at the Children's Hospital, Denver, Colorado.

PROGRAM

Nebraska Medical Association 108th Annual Session

TUESDAY MORNING, MAY 4, 1976

8:00 Registration, Lobby

8:00 Exhibits Open, Sunset Room
Coffee available in Exhibit Area

9:15 **OPENING CEREMONIES — Harvest Rooms A & B**

Welcome —
Warren G. Bosley, M.D., Grand Island
NMA President

Invocation —
Reverend William Doran, Kearney
First United Methodist Church

Necrology —
Frank P. Stone, M.D., Lincoln
NMA Past President and Senior
Member of the NMA Policy Committee

9:30 to 12:00 **SYMPOSIUM ON PEDIATRIC PROBLEMS [KID STUFF] — Harvest Rooms A & B**

Moderator —
Kenton L. Shaffer, M.D., Kearney
Pediatrics

"Bones — Bent Not Broken"
—Richard D. Smith, M.D., Omaha
Orthopedic Surgery

"Common Dermatology Problems in Children"
—Joan F. Till, M.D., Lincoln
Dermatology

"The Little Bellyacher"
—Arnold Silverman, M.D., Denver, Colorado
Clinical Professor, Department of Pediatrics,
University of Colorado Medical Center &
Director of Pediatric Service, Denver General Hospital

"Pediatric Surgical Problems. Why and When to Operate."
—William Carl Bailey, M.D., Denver, Colorado
Interim Chief of Surgery
Children's Hospital

Questions and Discussion

PROGRAM

TUESDAY NOON, MAY 4, 1976

12:00 **ATHLETIC MEDICINE LUNCHEON — Harvest Rooms A & B**

Sponsored by the NMA Subcommittee on Athletic Injuries

Presiding —

John E. Murphy, M.D., Aurora
Chairman, NMA Subcommittee on Athletic Injuries

Mr. Robin Roberts

Fort Washington, Pennsylvania

Mr. Roberts graduated from Michigan State College in 1948 with a Bachelor of Science Degree in Education. He pitched Major League Baseball from 1948 until 1966 with the Philadelphia Phillies, the Baltimore Orioles, the Houston Astros and the Chicago Cubs. He won 286 Major League games. He currently serves as Vice-President, Investment Management Division, Lehman Brothers, New York City. Mr. Roberts was elected to the Baseball Hall of Fame in 1976.

"The Little Leaguer"

Mr. Robin Roberts, Fort Washington, Pennsylvania
Former Philadelphia Phillies Pitcher
Member of the Baseball Hall of Fame

Presentation of AMA-ERF Checks

2:00 Visit the Exhibits, Sunset Room

PROGRAM

TUESDAY AFTERNOON, MAY 4, 1976

2:30 to 5:15 **SYMPOSIUM ON PSYCHIATRY — "Medicine & Marriage" — Harvest Rooms A & B**

Moderator —
Clark D. Wieland, M.D., Scottsbluff
Psychiatry

Gordon H. Deckert, M.D.

Oklahoma City, Oklahoma

Doctor Deckert graduated from Northwestern University Medical School in 1955. Following an internship in Chicago, he was a Fellow in Medicine at the Mayo Clinic. He obtained his psychiatry training in Oklahoma and in 1969 was named Professor and Chairman of the Department of Psychiatry and Behavioral Sciences, University of Oklahoma Health Sciences Center. Doctor Deckert has received nine awards for excellence in teaching from his students and his University and has been in considerable demand as a speaker and director of workshops.

MEDICINE & MARRIAGE

"The Patient in the Practitioner's Office"

Fifteen-Minute Break

"Patience in the Practitioner's Family"
—Gordon H. Deckert, M.D., Oklahoma City, Oklahoma
Professor & Chairman, Department of Psychiatry and Behavioral Sciences
University of Oklahoma Health Sciences Center

4:15 Visit the Exhibits, Sunset Room

CONDENSED SCHEDULE OF PROGRAM

SUNDAY, MAY 2, 1976

11:00 Board of Councilors,
Colonial Room

1:00 House of Delegates,
Harvest Room A

7:00 Medicine and Religion Dinner,
Harvest Rooms A & B

MONDAY, MAY 3, 1976

Morning

8:00 House of Delegates,
Harvest Rooms A & B

10:30 Nominating Committee,
Room 200

11:00 Board of Councilors,
Colonial Room

Afternoon

11:30 Sportsman's Day Luncheon,
Kearney Country Club
West Highway 30, Kearney

1:00 Golf Tournament,
Kearney Country Club
West Highway 30, Kearney

1:00 Tennis,
Kearney Country Club
(West Highway 30, Kearney)
Harmon Park
(33rd & 5th Avenue)

1:00 Canoe Trip,
Odessa to Kearney
(Meet at Kearney Country Club,
West Highway 30, Kearney)

5:30 Sportsman's Social Hour,
Kearney Country Club
West Highway 30, Kearney

6:30 Sportsman's Annual Award Dinner,
Kearney Country Club
West Highway 30, Kearney

TUESDAY, MAY 4, 1976

Morning

7:30 Board of Directors,
Club Continental

8:00 Registration,
Lobby

8:00 Exhibits Open,
Sunset Room

9:15 Opening Ceremonies,
Harvest Rooms A & B
Welcome
Invocation
Necrology

9:30-12:00
Symposium on Pediatric Problems
[Kid Stuff],
Harvest Rooms A & B

11:15 Nominating Committee,
Room 200

12:00 Athletic Medicine Luncheon,
Harvest Rooms A & B

Afternoon

2:00 Visit the Exhibits,
Sunset Room

2:30-5:15
Symposium on Psychiatry —
"Medicine & Marriage,"
Harvest Rooms A & B

4:15 Nominating Committee,
Room 200

4:15 Visit the Exhibits,
Sunset Room

6:00 PRESIDENT'S RECEPTION FOR
MEMBERS AND WIVES,
Main Dining Room
Holiday Inn of Kearney

7:00 FUN NIGHT,
Harvest Rooms A & B
Holiday Inn of Kearney

WEDNESDAY, MAY 5, 1976

Morning

7:00 Past President's Breakfast,
Room 200

7:30 House of Delegates,
Harvest Rooms A & B

8:00 Registration,
Lobby

8:30 Visit the Exhibits,
Sunset Room

9:15-11:15
Symposium on What's New In Medicine,
Harvest Rooms A & B and
Colonial Room

11:15 Visit the Exhibits,
Sunset Room

12:00 Annual Distinguished Luncheon,
Harvest Rooms A & B
Installation of New President
Presidential Address
Recognition of Fifty-Year Practitioners
Speaker — Mr. Merrill J. Mattes

PROGRAM

TUESDAY EVENING, MAY 4, 1976

6:00 **PRESIDENT'S RECEPTION For Members and Wives**
Main Dining Room
Holiday Inn of Kearney

7:00 **FUN NIGHT**
Harvest Rooms A & B
Holiday Inn of Kearney

Joel T. Johnson, M.D., Chairman

THE AL FIKE SHOW AND FEATURING DAN BASHOR FROM DENVER, COLORADO

Al Fike gives you a show you won't forget! He swings, belts, rocks and croons his way to your senses and you'll love every minute! Backed by Dan Bashor, you'll get the feel of 'big sound' music with a magic, modern touch. Treat yourself to a dynamic performance . . . Al Fike!

Al Fike loves an audience and enjoys watching people have a good time!

PROGRAM

WEDNESDAY MORNING, MAY 5, 1976

8:00 Registration, Lobby

8:30 Visit the Exhibits, Sunset Room
Coffee available in Exhibit Area

9:15 to 11:15 **SYMPOSIUM ON WHAT'S NEW IN MEDICINE — Harvest Room A, Harvest Room B & Colonial Room**

Moderator —
R. C. Rosenlof, M.D., Kearney
Internal Medicine

Three Simultaneous Round-Table Discussions Scheduled in Thirty-Five Minute Segments.

Informality and Free Discussion Will Prevail.

PROGRAM

WEDNESDAY MORNING, MAY 5, 1976

9:15 to 11:15 Cardiology: "Stress Testing" — Harvest Room A

—Richard R. Miles, M.D., Omaha
Cardiology

—Charles S. Wilson, M.D., Lincoln
Cardiology

Pulmonary Medicine: "Interstitial Pneumonias"
Harvest Room B

—Louis W. Burgher, M.D., Omaha
Internal Medicine

—Robert D. Sidner, M.D., Kearney
Internal Medicine

Laboratory Medicine: "Multiphasic Screening Clues of Cancer" — Colonial Room

—Martin R. Lohff, M.D., Omaha
Pathology

—John F. Porterfield, M.D., Lincoln
Pathology

Co-Sponsored by the American Cancer Society — Nebraska Division, Inc.

11:15 Visit the Exhibits, Sunset Room

PROGRAM

WEDNESDAY NOON, MAY 5, 1976

Mr. Merrill J. Mattes

Merrill J. Mattes retired in 1975, after a career of forty years with the National Park Service, most of that time holding responsible posts in the field of historic preservation. He is now a resident of Littleton, a suburb of Denver, Colorado, actively engaged in historical consulting work. From 1935 until 1946, he was the first Superintendent of Scotts Bluff National Monument, where he says he became infected with "Oregon Trail fever." Until 1966, he was Chief of History and Archeology for the Midwest Region in Omaha. Mr. Mattes has published four books, including COLTER'S HELL and JACKSON'S HOLE, and the national award-winning GREAT PLATTE RIVER ROAD. Mr. Mattes has been awarded the Distinguished Service Award of the U. S. Department of the Interior.

PROGRAM

WEDNESDAY NOON, MAY 5, 1976

12:00 ANNUAL DISTINGUISHED LUNCHEON — Harvest Rooms A & B

For Members and Wives

Presiding —

William H. Northwall, M.D., President
Buffalo County Medical Society

Installation of Harlan L. Papenfuss, M.D.

Presidential Address —

Warren G. Bosley, M.D.

Recognition of Fifty-Year Practitioners

Siegfried H. Brauer, M.D.
Norfolk

Nancy Catania, M.D.
Omaha

Donaldson W. Kingsley, Sr., M.D.
Hastings

Esley J. Kirk, M.D.
Omaha

William F. Novak, M.D.
Omaha

George E. Robertson, M.D.
Omaha

Charles J. Shramek, M.D.
Omaha

Hardin S. Tennant, M.D.
Stanton

Charles P. Waite, M.D.
Norfolk

Charles R. Williams, M.D.
Syracuse

Speaker —

"The Gold Rush Mania: Victims and Survivors.

Mr. Merrill J. Mattes
Noted Author of THE GREAT PLATTE RIVER ROAD

MRS. Y. SCOTT MOORE
Lincoln, Nebraska
President, 1975-1976

MRS. GORDON D. FRANCIS
Grand Island, Nebraska
President, 1976-1977

MRS. C. M. LESSENDEN, JR.
Topeka, Kansas
North Central Regional
Vice President
For The
American Medical
Association Auxiliary

Auxiliary

51st Annual Meeting
of the
Nebraska Medical Association
Auxiliary

A CORDIAL INVITATION IS EXTENDED TO EACH PHYSICIAN'S SPOUSE IN NEBRASKA. WE URGE YOU TO REGISTER AND ATTEND THE ENTIRE PROGRAM. COME, RELAX AND HAVE FUN IN KEARNEY!

Registration —

Monday, May 3 — 9:00 A.M. to 3:00 P.M. — Lobby, Holiday Inn

Tuesday, May 4 — 9:00 A.M. to 10:30 A.M. — Lobby, Holiday Inn

Wednesday, May 5 — 9:00 A.M. to 10:00 A.M. — Lobby, Holiday Inn

Convention Committees —

General Chairpersons:
Mrs. Kay Sidner, Mrs. Mary Scott

Registration:
Mrs. Fran Vnuk

Publicity:
Mrs. Carla Brooke

Hospitality:
Mrs. Fran Lane

Social:
Mrs. Bev Stevenson, Mrs. Jackie Rosenlof

Transportation:
Mrs. Elsa Staley

Decorations:
Mrs. Rosemary Northwall

Business Meeting Hostess:
Mrs. Suz Walker

Hostess Auxiliary:
Buffalo County Medical Auxiliary

Auxiliary

PROGRAM

SUNDAY, MAY 2, 1976

Afternoon

3:00 Golf & Tennis — Kearney Country Club, West Highway 30

Evening

7:00 Medicine and Religion Dinner — Harvest Room A, Holiday Inn
"Middle Age — A Disease Most Physicians Have"
—Chaplain Al E. Anderson, Director of Chaplaincy Services, Immanuel Medical Center, Omaha, Nebraska

MONDAY, MAY 3, 1976

Morning

9:00-3:00 Registration — Lobby, Holiday Inn

9:00 Rolls and Coffee — Persimmon Room, Holiday Inn

9:15 Pre-Convention Executive Board Meeting — Persimmon Room, Holiday Inn

9:45 Board Meeting — Persimmon Room, Holiday Inn

Afternoon

1:00 Meet in Lobby, Holiday Inn
(Be guests of the Kearney Humanities League at an "American Issues Forum" and tour the Frank House, a historical landmark. It was the home of George W. Frank. Built in 1889, at a cost of $35,000, it has three floors, six fireplaces, 40 rooms and a lovely Tiffany window. It is property of Kearney State College and is being restored and used as a cultural center.)

Evening

7:00 Auxiliary No-Host Dinner
Cattleman's Mining Co., 46th and 2nd Avenue
Enjoy Dicky Dugan's famous saloon following dinner. (Meet in Holiday Inn Lobby if transportation is needed.)

TUESDAY, MAY 4, 1976

Morning

9:00-10:30 Registration — Lobby, Holiday Inn
(This is our big day — if you can only attend one day, make it today!)

Auxiliary

PROGRAM

TUESDAY, MAY 4, 1976 [CONT.]

10:30 Brunch — Ramada Inn, Poolside
(Taking Place of Usual Luncheon)
Theme — Medical Bicentennial
Guest Speaker —
Mrs. C. M. Lessenden, Jr., North Central Regional Vice-President for the AMA Auxiliary
Introductions of Honored Guests
Installation of New Officers
Presentation of Special Awards
Entertainment Courtesy of the Kearney High School Music Department

Afternoon

2:30-5:15 Symposium on Psychiatry — "Medicine & Marriage"
(Joint Meeting of Auxiliary and NMA)
Harvest Rooms A & B, Holiday Inn
Speaker —
"The Patient in the Practitioner's Office"
Fifteen-Minute Break
"Patience in the Practitioner's Family"
—Gordon H. Deckert, M.D., Oklahoma City, Oklahoma
Professor & Chairman, Department of Psychiatry and Behavioral Sciences
University of Oklahoma Health Sciences Center

Evening

6:00 President's Reception — Main Dining Room, Holiday Inn

7:00 Fun Night — Harvest Rooms A & B, Holiday Inn
Entertainment — "The Al Fike Show"

WEDNESDAY, MAY 5, 1976

Morning

9:00-10:00 Registration — Lobby, Holiday Inn

9:00 Rolls and Coffee — Persimmon Room, Holiday Inn

9:15 Board Meeting — Persimmon Room, Holiday Inn

Afternoon

12:00 Luncheon with the Nebraska Medical Association
Harvest Rooms A & B, Holiday Inn
Installation of Harlan L. Papenfuss, M.D.
Presidential Address — Warren G. Bosley, M.D.
Recognition of Fifty-Year Practitioners
Speaker — Mr. Merrill J. Mattes, Noted Author of THE GREAT PLATTE RIVER ROAD

Past Presidents Nebraska Medical Association

Gilbert C. Monell, M.D., Omaha	1868-69
James H. Peabody, M.D., Omaha	1869-70
N. B. Larsh, M.D., Nebraska City	1870-71
R. R. Livingston, M.D., Plattsmouth	1871-72
A. Bowen, M.D., Nebraska City	1872-73
H. P. Mathewson, M.D., Omaha	1873-74
John Black, M.D., Plattsmouth	1874-75
L. H. Robbins, M.D., Lincoln	1875-76
J. P. Peck, M.D., Omaha	1876-77
L. J. Abbott, M.D., Fremont	1877-78
E. M. Whitten, M.D., Nebraska City	1878-79
Harvey Link, M.D., Millard	1879-80
S. D. Mercer, M.D., Omaha	1880-81
M. W. Stone, M.D., South Omaha	1881-82
A. H. Sowers, M.D., Lincoln	1882-83
Victor H. Coffman, M.D., Omaha	1883-84
F. G. Fuller, M.D., Grand Island	1844-85
W. W. Knapp, M.D., Lincoln	1885-86
Richard C. Moore, M.D., Omaha	1886-87
George H. Peebles, M.D., Lincoln	1887-88
Milton Lane, M.D., Kearney	1888-89
J. C. Denise, M.D., Omaha	1889-90
D. A. Walden, M.D., Beatrice	1890-91
Charles Inches, M.D., Scribner	1891-92
M. L. Hildreth, M.D., Lyons	1892-93
A. S. von Mansfelde, M.D., Ashland	1893-94
H. B. Lowry, M.D., Lincoln	1894-95
J. E. Summers, M.D., Omaha	1895-96
F. D. Haldeman, M.D., Ord	1896-97
Wilson O. Bridges, M.D., Omaha	1897-98
A. R. Mitchell, M.D., Lincoln	1898-99
Robert McConaughy, M.D., York	1899-00
H. M. McClanahan, M.D., Omaha	1900-01
Wm. B. Eby, M.D., Ainsworth	1901-02
A. B. Anderson, M.D., Pawnee City	1902-03
B. F. Crummer, M.D., Omaha	1903-04
R. C. McDonald, M.D., Fremont	1904-05
A. F. Jonas, M.D., Omaha	1905-06
F. A. Long, M.D., Madison	1906-07
Harold Gifford, M.D., Omaha	1907-08
L. M. Shaw, M.D., Osceola	1908-09
P. H. Salter, M.D., Norfolk	1909-10
J. P. Lord, M.D., Omaha	1910-11
A. D. Nesbit, M.D., Tekamah	1911-12
I. N. Pickett, M.D., Odell	1912-13
D. C. Bryant, M.D., Omaha	1913-14
J. P. Gilligan, M.D., O'Neill	1914-15
E. W. Rowe, M.D., Lincoln	1915-16
W. F. Milroy, M.D., Omaha	1916-17 (to 12-31-17)
C. L. Mullins, M.D., Broken Bow	1918
J. M. Bannister, M.D., Omaha	1919
H. W. Orr, M.D., Lincoln	1920
M. S. Moore, M.D., Gothenburg	1921
B. B. Davis, M.D., Omaha	1922
B. F. Bailey, M.D., Lincoln	1923

Past Presidents Nebraska Medical Association

Morris Nielsen, M.D., Blair	1924
Palmer Findley, M.D., Omaha	1925
H. J. Lehnhoff, M.D., Lincoln	1926
H. E. Potter, M.D., Fairbury	1927
B. R. McGrath, M.D., Grand Island	1928-29 (to 5-14-29)
F. S. Owen, M.D., Omaha	1929-30
K. S. J. Hohlen, M.D., Lincoln	1930-31
Lucien Stark, M.D., Norfolk	1931-32
A. E. Cook, M.D., Randolph	1932-33
Adolph Sachs, M.D., Omaha	1933-34
Joseph Bixby, M.D., Geneva	1934-35
Claude A. Selby, M.D., North Platte	1935-36
George W. Covey, M.D., Lincoln	1936-37
R. W. Fouts, M.D., Omaha	1937-38
Homer Davis, M.D., Genoa	1938-39
A. L. Miller, M.D., Kimball	1939-40
Clayton F. Andrews, M.D., Lincoln	1940-41
W. P. Wherry, M.D., Omaha	1941-42
Dexter D. King, M.D., York	1942-43
A. L. Cooper, M.D., Scottsbluff	1943-44
Floyd L. Rogers, M.D., Lincoln	1944-45
Charles McMartin, M.D., Omaha	1945-46
Earle G. Johnson, M.D., Grand Island	1946-47
G. E. Charlton, M.D., Norfolk	1947-48
J. E. M. Thomson, M.D., Lincoln	1948-49
J. D. McCarthy, M.D., Omaha	1949-50
C. H. Sheets, M.D., Cozad	1950-51
D. B. Steenburg, M.D., Aurora	1951-52
Harold S. Morgan, M.D., Lincoln	1952-53
James F. Kelly, M.D., Omaha	1953-54
Earl F. Leininger, M.D., McCook	1954-55
Wm. E. Wright, M.D., Creighton	1955-56
J. M. Woodward, M.D., Lincoln	1956-57
R. Russell Best, M.D., Omaha	1957-58
Fay Smith, M.D., Imperial	1958-59
E. E. Koebbe, M.D., Columbus	1959-60
Fritz Teal, M.D., Lincoln	1960-61
A. J. Offerman, M.D., Omaha	1961-62
O. A. Kostal, M.D., Hastings	1962-63
R. F. Sievers, M.D., Blair	1963-64
R. E. Garlinghouse, M.D., Lincoln	1964-65
Willis D. Wright, M.D., Omaha	1965-66
Dan A. Nye, M.D., Kearney	1966-67
Robert J. Morgan, M.D., Alliance	1967-68
Frank H. Tanner, M.D., Lincoln	1968-69
J. Whitney Kelley, M.D., Omaha	1969-70
Clarence R. Brott, M.D., Beatrice	1970-71
Roger D. Mason, M.D., McCook	1971-72
Frank P. Stone, M.D., Lincoln	1972-73
John D. Coe, M.D., Omaha	1973-74
James H. Dunlap, M.D., Norfolk	1974-75

Technical Exhibitors

108th Annual Session

ABBOTT LABORATORIES, North Chicago, Illinois — You are cordially invited to visit the Abbott exhibit which will feature Tranxene® (clorazepate dipotassium) and Erythrocin® (erythromycin) products.

BLUE CROSS AND BLUE SHIELD OF NEBRASKA, Omaha, Nebraska — Provider Relations Representatives will be on hand for individual discussions with Physicians on Blue Cross and Blue Shield policies, procedures and to distribute informative brochures and booklets.

COCA COLA U.S.A., Chicago, Illinois — Stop by our booth for a free Coke or TAB. Coca-Cola . . . it's the real thing! And sugar-free TAB . . . only two calories per 8-ounce serving.

COOPER LABORATORIES, INC., Parsippany, New Jersey — Cooper Laboratories invites you to visit with us at Booth #30. KAY CIEL® (potassium chloride) powder and elixir and ELIXOPHYLLIN® (theophylline) capsules and elixir will be featured. Additional products of our manufacture will be on display for your review. Our technical representatives will be on hand to answer questions you might have regarding our products. Samples will be made available to the profession upon request.

DAIRY COUNCIL OF CENTRAL STATES, INC., Omaha, Nebraska — "Nutrition Education: An Ageless Concern" will focus on printed nutrition information for physicians to use in counseling their patients on weight control, prenatal and childhood nutrition, and normal nutrition. A milk dispenser will also be available for your between-meal session breaks.

DORSEY LABORATORIES, Lincoln, Nebraska — Dorsey would welcome a visit from our state physicians to become familiar with medical educational material and patient aids on our feature products. We are presenting new information on products used to treat respiratory and skin diseases. We hope your stay is enjoyable and beneficial and that we will have the opportunity of visiting with you.

INTERNATIONAL MEDICAL ELECTRONICS, LTD., Kansas City, Missouri — International Medical Electronics, Ltd. manufacturers of sophisticated medical equipment, featuring Magnatherm short-wave diathermy with two detachable heads. Offering the ability to treat two separate areas, or one from two directions at the same time. Please stop by Booth #32 for a demonstration.

MALLINCKRODT, INC., Hazelwood, Missouri — Factory-trained men will be available to discuss RYNATAN®, RYNATUSS®, LUFYLLIN®, and DIUTENSEN®.

NATIONAL FOUNDATION — MARCH OF DIMES, Lincoln, Nebraska — A visual display depicting the variety of genetic diagnostic and counseling services and activities available through the Center for Genetic Evaluation at Childrens Memorial Hospital. Sample educational materials will be available for inspection.

Technical Exhibitors

108th Annual Session

NEBRASKA DEPARTMENT OF HEALTH, Lincoln, Nebraska — An exhibit entitled "High Blood Pressure" presents basic facts on hypertension and information regarding screening clinics held throughout Nebraska under the joint sponsorship of the Nebraska Department of Health and the Nebraska Heart Association. Samples of materials used in the HBP screenings will be available at the HBP booth. The exhibit is jointly sponsored by the Nebraska Department of Health's Hypertension Control Program and Dr. Gerald Wolf of the University of Nebraska Medical Center.

ROCHE LABORATORIES, Nutley, New Jersey — Visit our representatives at Booth #1.

ST. PAUL FIRE AND MARINE INSURANCE COMPANY, St. Paul, Minnesota — The theme of the St. Paul's exhibit will be "Medical Malpractice Loss Prevention." Highlighting this exhibit will be a display of the types of claims being experienced by Nebraska doctors. This information comes from a report called the "Claims Analysis System," a concept developed by the St. Paul in 1973. It outlines the number of claims by allegation and identifies the types of claims incurred with each Nebraska county.

SANDOZ PHARMACEUTICALS, East Hanover, New Jersey — Sandoz Pharmaceuticals cordially invites you to visit our display at Booth #5, where we are featuring MELLARIL, HYDERGINE and SANOREX. Any of our representatives in attendance will gladly answer questions about these and other Sandoz products.

SOCIAL SECURITY DISABILITY, Lincoln, Nebraska — This is a light, portable, well-lit, table-top display which is quite attractive and 5' tall. The information depicts the medical evaluation criteria used in making disability determinations for Social Security.

E. R. SQUIBB & SONS, Princeton, New Jersey — E. R. Squibb & Sons, Inc., has long been a leader in the development of new therapeutic agents and equipment for the prevention and treatment of disease. You are cordially invited to meet our pharmaceutical representatives who will be available at our exhibit to discuss our full line of products, which will include our two newest VELOSEF and HALOG.

STAT MEDICAL, INC., Grand Island, Nebraska — On display will be various surgical instruments manufactured by the Miltex Corporation. Also, for the lab-oriented physician, Stat will be displaying the EYETONE.

SUMMIT MEDICAL DISTRIBUTORS, INC., Lee's Summit, Missouri — All the qualities of plaster casting with none of the mess and half the time. That's the Orthopedic Casting Laboratory System, marketed in Nebraska by Summit Medical Distributors.

UNITED STATES NAVY MEDICINE, Omaha, Nebraska — Physicians are cordially invited to visit our exhibit in Booth 17.

ADVERTISERS' INDEX

A

Accent Service Company, Inc. 25
American Medical Association 19

B

Burroughs Wellcome Co. 9

D

Dairy Council of Central States, Inc. 7
Donley Medical Supply Co. 7
Dow Pharmaceuticals 11, 12, 13, 14

F

Flint Laboratories 20, 21, 22

L

Eli Lilly and Company 28
Loma Linda Foods 136B

M

Medical Protective Co. (The) 15

N

Norfolk Printing Co., Inc. 26

P

Pharmaceutical Manufacturers Association 16, 17

R

Roche Laboratories 2, 3, 31, 32, 128B, 128C, 128D
Roerig & Co. 128A

S

Smith Kline & French Laboratories 136A

Physicians' Classified

FAMILY PRACTITIONER WISHES ASSOCIATE who is Board-certified or Board-eligible in family practice to join family practice. Located in Waterloo, Iowa, a northeast Iowa community of 75,000. All records dictated on the Problem Orientated Medical Records System. Contact: Ronald R. Roth, M.D., 611 Black's Building, Waterloo, Iowa 50703.

GENERALISTS and SPECIALISTS working together to make Hartford a better place to live and practice medicine. Thirteen physicians presently serve the area in two clinics and solo practice. There is a need for more physicians to serve this fast-growing area — particularly in Family Practice and Internal Medicine. *New hospital with excellent facilities completed in 1974.
*Population of 7,000 Service area population 30,000 and increasing rapidly.
*Rural community flavor, close to lakes, ski areas and other recreation.
*30 minutes from major cultural, educational and social resources.
This invitation to Hartford, Wisconsin, is the Co-operative effort of the physicians, clinics, hospital and interested community leaders. Please contact: Hartford Physicians Search Committee, c/o N. K. Reynolds, Hartford Memorial Hospital, 1032 East Sumner Street, Hartford, Wisconsin 53027. Phone: 414-673-2300.

CLINIC AVAILABLE — General practice in furnished clinic. County seat town, SW Nebraska. Three nursing homes in town, good territory. Equipped office available for dentist. Write Box 8, Beaver City, Nebraska 68926.

MATURE, RESPONSIBLE COLLEGE STUDENT seeks summer employment as tutor/governess. Premed student with perfect grade average. Proficient in French, physics, math, chemistry, music, sewing, cooking. Urban and rural background with experience in most recreational sports. Previous employment includes work in day care centers. References exchanged. Contact: Ann Dunlap, Box 622, 820 North 17th St., Lincoln, Ne. 68508.

STUDENT HEALTH SERVICE — Fulltime position for qualified physician to complete staff of thirteen; excellent staff and program; accredited new facilities; outstanding campus and community; salary range mid-twenties; regular hours; one-month vacation; Kansas license required. For further information contact: Director, Student Health Service, Watkins Memorial Hospital, University of Kansas, Lawrence, Kansas 66045. An Equal Opportunity/Affirmative Action Employer.

10-day Bactrim therapy outperforms 10-day ampicillin therapy.

In a multicenter, double-
lind study of patients with
hronic or frequently recurrent
rinary tract infection, Bactrim 10-
lay therapy outperformed ampi-
illin 10-day therapy by 27.2%,
vhen comparing patients
vho maintained clear cultures
or eight weeks. Criterion for "clear culture" was
000 or fewer organisms/ml of urine.

Vhile adverse reactions were mild (*e.g.*, nausea,
ash), more serious reactions can occur with these
lrugs. See manufacturers' product information
or complete listing.

'ote: Bactrim single strength tablets were used in these clinical
ials. However, studies have established the bioequivalency of
actrim DS with the single strength tablets.

Bactrim™ DS
(160 mg trimethoprim and 800 mg sulfamethoxazole)

double strength tablets Just 1 tablet B.I.D.

Bactrim™
(80 mg trimethoprim and 400 mg sulfamethoxazole)

2 tablets B.I.D.

For chronic or frequently recurrent cystitis and pyelonephritis due to susceptible organisms.

efore prescribing, please consult complete product information, a ummary of which follows:

ndications: Chronic urinary tract infections evidenced by persistent acteriuria (symptomatic or asymptomatic), frequently recurrent infec-ons (relapse or reinfection), or infections associated with urinary act complications, such as obstruction. Primarily for cystitis, pyelo-ephritis or pyelitis due to susceptible strains of *E. coli, Klebsiella-nterobacter, Proteus mirabilis, Proteus vulgaris* and *Proteus norganii.*

'OTE: The increasing frequency of resistant organisms limits the use-ulness of antibacterials, especially in these urinary tract infections.
he recommended quantitative disc susceptibility method (*Federal egister*, 37:20527-20529, 1972) may be used to estimate bacterial usceptibility to Bactrim. A laboratory report of "Susceptible to tri-nethoprim-sulfamethoxazole" indicates an infection likely to respond Bactrim therapy. If infection is confined to the urine, "Intermedi-te susceptibility" also indicates a likely response. "Resistant" indi-ates that response is unlikely.

ontraindications: Hypersensitivity to trimethoprim or sulfonamides; regnancy; nursing mothers.

'arnings: Deaths from hypersensitivity reactions, agranulocytosis, plastic anemia and other blood dyscrasias have been associated vith sulfonamides. Experience with trimethoprim is much more mited but occasional interference with hematopoiesis has been re-orted as well as an increased incidence of thrombopenia with pur-ura in elderly patients on certain diuretics, primarily thiazides. ore throat, fever, pallor, purpura or jaundice may be early signs of erious blood disorders. Frequent CBC's are recommended; therapy hould be discontinued if a significantly reduced count of any formed lood element is noted. **Data are insufficient to recommend use in in-ants and children under 12.**

'recautions: Use cautiously in patients with impaired renal or hepatic unction, possible folate deficiency, severe allergy or bronchial sthma. In patients with glucose-6-phosphate dehydrogenase defi-iency, hemolysis, frequently dose-related, may occur. During ther-py, maintain adequate fluid intake and perform frequent urinalyses, vith careful microscopic examination, and renal function tests, par-icularly where there is impaired renal function.

dverse Reactions: All major reactions to sulfonamides and trimeth-prim are included, even if not reported with Bactrim. *Blood dys-rasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, hrombopenia, leukopenia, hemolytic anemia, purpura, hypopro-hrombinemia and methemoglobinemia. *Allergic reactions:* erythema nultiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12. Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) every 24 hours
Below 15	Use not recommended

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole — bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10.

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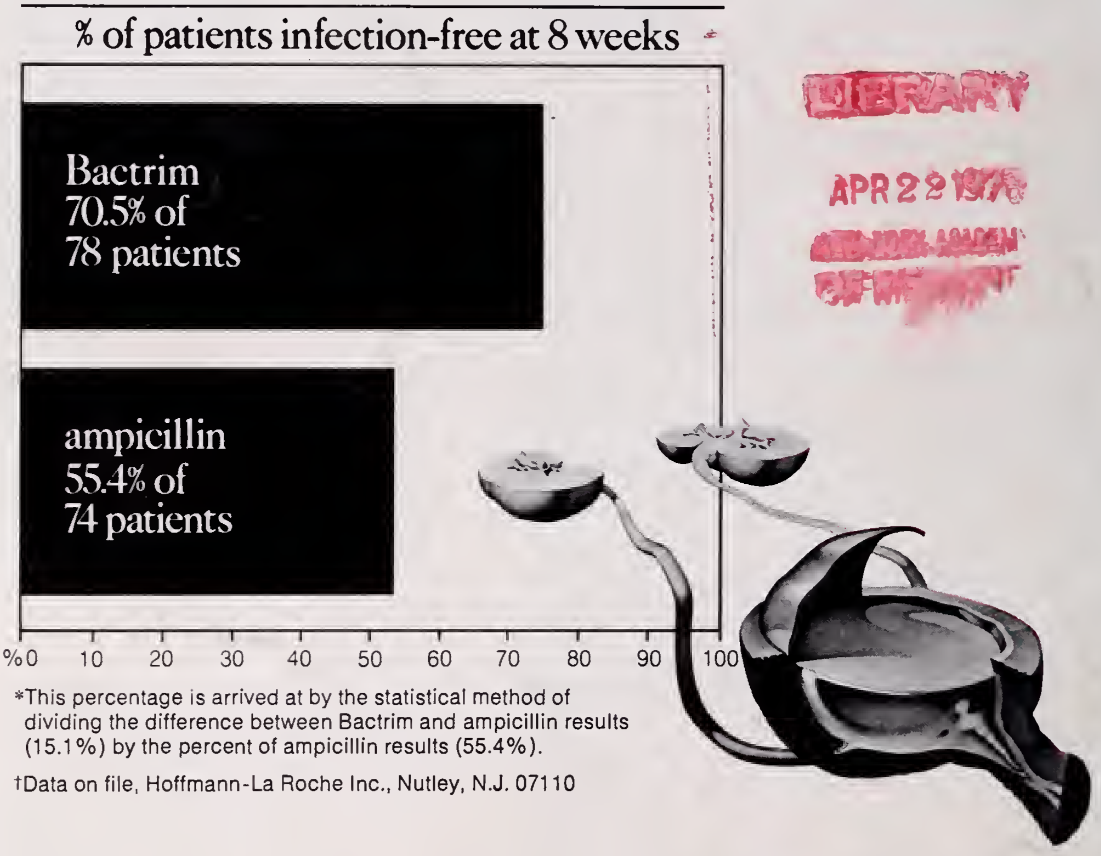

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*This percentage is arrived at by the statistical method of dividing the difference between Bactrim and ampicillin results (15.1%) by the percent of ampicillin results (55.4%).

†Data on file, Hoffmann-La Roche Inc., Nutley, N.J. 07110

Bactrim[T.M.] DS

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double strength tablets
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Please see summary of product information on preceding page.

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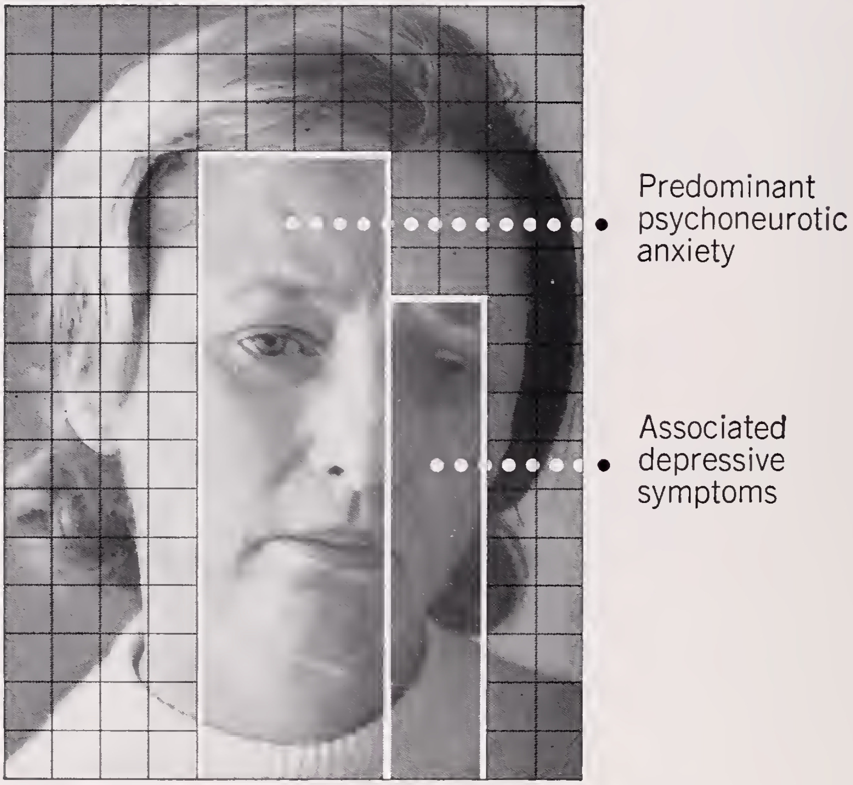
BALCONY

The Nebraska Medical Journal

May, 1976

Both often


Predominant psychoneurotic anxiety
Associated depressive symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful

respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as the excessive anxiety is relieved, the depressive symptoms associated with it are also often relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

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2-mg, 5-mg, 10-mg scored tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

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Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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Nutley, New Jersey 07110

The Nebraska Medical Journal

EDITOR-FRANK COLE, M.D., 1845 "F" St., Apt. 1, Lincoln 68508 MAY 1976 VOL. 61, NO. 5
PHONE 471-5016

EDITORIALS —

How Do You Plead? ... 151
Where Are They Now? ... 151
Why Does The Wrist Have So Many Names? ... 152
My Own Disease ... 152
On Training ... 152

ORIGINAL ARTICLES —

The Significance of the HL-AB27 Antigen in a Rheumatologic Practice ... 154
Arthur L. Weaver, M.D., M.S., (Med.) F.A.C.P.
David A. Cooley, M.D.

Exercise in Weight Reduction ... 158
L. M. Hursh, M.D.

Diuretics in Antihypertensive Therapy ... 160
H. Frederick Dalske, Ph.D.
Gerald L. Wolf, M.D., Ph.D.

My Practice ... 162
D. W. Kingsley, Sr., M.D.

Acute Leukemia Presenting with Pericardial Involvement, Part I ... 163
James O. Armitage
John R. Feagler

Behavior Therapy for Obesity: Another Fad or a New Set of Facts?, Part I ... 168
William T. McReynolds

FEATURES —

President's Page ... 172
The Auxiliary ... 173
Books ... 174

IN MEMORIAM ... 175
Frank H. Tanner, M.D.

BETWEEN CASES ... 177

NEBRASKA —

Our Medical Schools ... 8A
State Organizations ... 9A

DOWN MEMORY LANE ... 178

DEAN'S CORNER ... 178

ALL THE STATES —

WashingtoNotes ... 179
National Organizations ... 9A

I REMEMBER —

Three Transfusions ... 182

AROUND THE WORLD —

The Letter Box ... 182
Coming Meetings ... 19A

Address all correspondence relating to subscriptions, advertising or address changes to Mr. Ken Neff, Business Manager, 1902 First National Bank Building, Lincoln, Nebraska 68508 Phone: (402) 432-7585.

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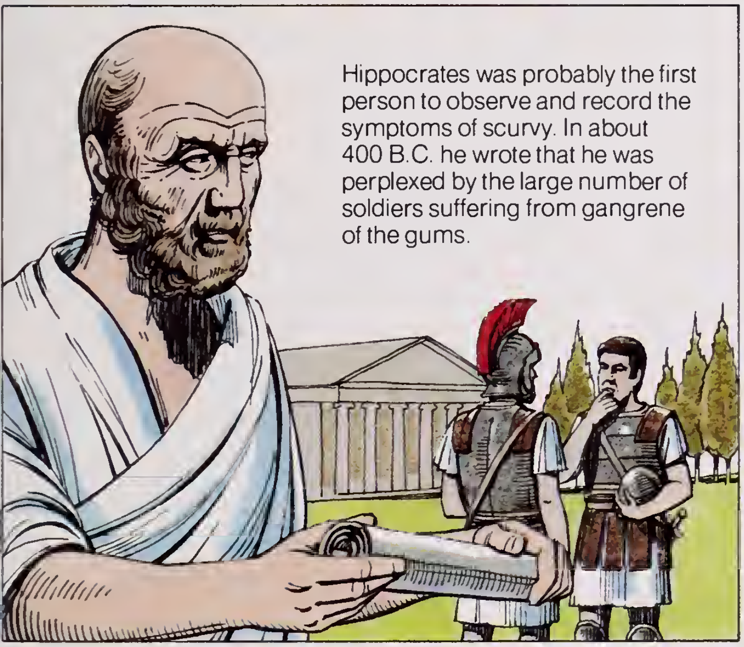
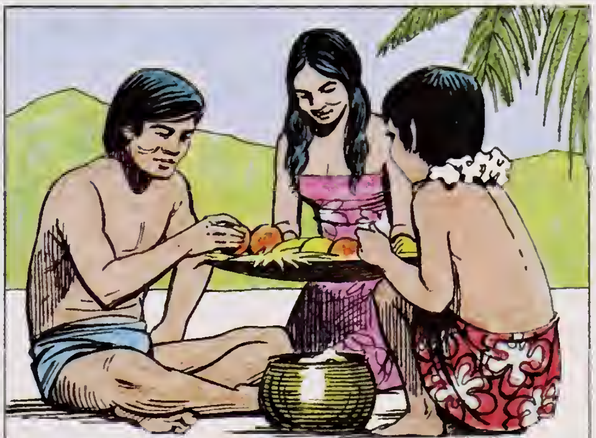


Hippocrates was probably the first person to observe and record the symptoms of scurvy. In about 400 B.C. he wrote that he was perplexed by the large number of soldiers suffering from gangrene of the gums.



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Our Medical Schools . . .

U of N courses.

1. The University of Nebraska Medical Center's Center for Continuing Education will offer a course in practical electrocardiography and arrhythmia management May 20 and 21, 1976.

The program will emphasize the common electrocardiographic abnormalities and arrhythmias, both supraventricular and ventricular, that are most frequently encountered in both clinical and emergency room situations.

The course will be conducted by members of the department of internal medicine at the University of Nebraska Medical Center. Coordinator is Dr. Alan Forker, associate professor of internal medicine.

The course is acceptable for 14.5 prescribed hours by the American Academy of Family Physicians. It also meets the criteria for 14.5 hours of credit in Category I for the physician's Recognition Award of the American Medical Association. It is approved for 14.5 hours by the American Academy of Physician's Assistants.

Registration fee is $60 for physicians, $40 for nurses, physician's assistants and other members of the allied health professions.

2. The Medical Center's annual Family Practice Review will be September 13-24, 1976. Because registration is limited, those who are interested should contact the Center for Continuing Education soon. Registration fee is $475, which may be paid in two installments.

3. A course on developmental disabilities will be offered at the University of Nebraska Medical Center April 29 and 30, 1976.

The course will focus on diagnosis, early intervention and follow-up.

The course will be conducted by faculty members of the Medical Center.

Coordinator is Sanford Smith, director of the office of educational services at the Meyer Children's Rehabilitation Institute.

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1. Stock, J. M., Surks, M. I., and Oppenheimer, J. H. Replacement dosage of L-thyroxine in hypothyroidism. A re-evaluation. New Engl. J. Med. 290:529-33, 1974.

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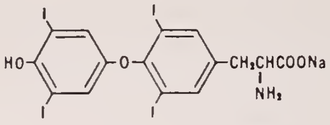

Sodium Levothyroxine

Actions: SYNTHROID (sodium levothyroxine) **Tablets,** taken orally, provide hormone that is readily absorbed from the gastrointestinal tract. SYNTHROID **Injection** is effective by any parenteral route. Following absorption, the synthetic L-thyroxine provided by SYNTHROID products cannot be distinguished from L-thyroxine that is endogenously secreted Each is bound to the same serum proteins and each exhibits a six to seven day circulating half-life in the euthyroid individual.

Both SYNTHROID products will provide L-thyroxine as a substrate for physiologic deiodination to L-triiodothyronine. Therefore, patients taking SYNTHROID products will demonstrate normal blood levels of L-triiodothyronine even when the thyroid gland has been surgically removed or destroyed by radioiodine. Administration of levothyroxine alone will result in complete physiologic thyroid replacement.

Indications: SYNTHROID (sodium levothyroxine) products serve as specific replacement therapy for reduced or absent thyroid function of any etiology. SYNTHROID **Injection** can be used intravenously whenever a rapid onset of effect is critical, and either intravenously or intramuscularly in hypothyroid patients whenever the oral route is precluded for long periods of time.

Contraindications: There are no absolute contraindications to SYNTHROID (sodium levothyroxine) therapy. Relative contraindications include acute myocardial infarction, uncorrected adrenal insufficiency and thyrotoxicosis. (See WARNINGS)

Warnings: Patients with cardiovascular diseases warrant particularly close attention during the restoration of normal thyroid function by any thyroid drug. In such cases, low initial dosage increased slowly by small increments is indicated Occasionally, the cardiovascular capacity of the patient is so compromised that the metabolic demands of the normal thyroid state cannot be met. Clinical judgment will then dictate either a less-than-complete restoration of thyroid status or reduction in thyroid dosage.

Endocrine disorders such as diabetes mellitus, adrenal insufficiency (Addison's disease), hypopituitarism and diabetes insipidus are characterized by signs and symptoms which may be diminished in severity or obscured by hypothyroidism. SYNTHROID (sodium levothyroxine) therapy for such patients may aggravate the intensity of previously obscured symptoms and require appropriate adjustment of therapeutic measures directed at these concomitant disorders.

Thyroid replacement may potentiate the effects of anticoagulants. Patients on anticoagulant therapy should have frequent prothrombin determinations when instituting thyroid replacement to gauge the need to reduce anticoagulant dosage.

Precautions: Overdosage with any thyroid drug may produce the signs and symptoms of thyrotoxicosis, but resistance to such factitious thyrotoxicosis is the general rule. With SYNTHROID (sodium levothyroxine) **Tablets,** the relatively slow onset of action minimizes the risk of overdose but close observation in the weeks following institution of a dosage regimen is advised Treatment of thyroid hyperactivity induced by oral medication is confined to interruption of therapy for a week, followed by reinstitution of daily therapy at an appropriately reduced dosage

Adverse reactions: Adverse reactions are due to overdose and are those of induced hyperthyroidism.

Dosage and administration: For most adults, a final dosage of 100 mcg (0.1 mg) to 200 mcg (0.2 mg) of SYNTHROID (sodium levothyroxine) **Tablets** daily will restore normal thyroid function and only occasionally will patients require larger doses. Failure to respond adequately to a daily oral intake of 400 mcg (0.4 mg) or more is rare and should prompt reconsideration of the diagnosis of hypothyroidism, special investigation of the patient in terms of malabsorption of L-thyroxine from the gastrointestinal tract or poor adherence to therapy.

The concomitant appearance of other diseases, especially cardiovascular diseases, usually dictates a replacement regimen with initial doses smaller than 100 mcg/day (0.1 mg).

In otherwise healthy adults with relatively recent onset of hypothyroidism, full replacement dose of 150 mcg (0.15 mg) or 200 mcg (0.2 mg) has been instituted immediately without untoward effect and with good therapeutic response. General experience, however, favors a more cautious approach in view of the possible presence of subclinical disorders of the cardiovascular system or endocrinopathies.

The age and general physical condition of the patient as well as the severity and duration of hypothyroid symptoms determine the starting dosage and the rate of incremental dosage increase leading to a final maintenance dosage. In the elderly patient with long standing disease, evidence of myxedematous infiltration and symptomatic, functional or electrocardiographic evidence of cardiovascular dysfunction, the starting dose may be as little as 25 mcg (0.025 mg) per day Further incremental increases of 25 mcg (0.025 mg) per day may be instituted at three to four week intervals depending on patient response. Conversely, otherwise healthy adults may be started at higher daily dosage and raised to the full replacement dosage in two to three weeks. Clearly it is the physician's judgment of the severity of the disease and close observation of patient response which determines the rate of dosage titration.

Laboratory tests to monitor thyroid replacement therapy are of limited value. Although measurement of normal blood levels of thyroxine in patients on replacement regimens frequently coincides with the clinical impression of normal thyroid status, higher than normal levels on oral replacement of levothyroxine occasionally occur and should not be considered evidence of overdosage per se.

In all cases, clinical impression of the well-being of the patient takes precedence over laboratory determination in determining the appropriate individual dosage.

In infants and children, there is a great urgency to achieve full thyroid replacement because of the critical importance of thyroid hormone in sustaining growth and maturation. Despite the smaller body size, the dosage needed to sustain a full rate of growth, development and general thriving is higher in the child than in the adult, as much as 300 mcg (0.3 mg) to 400 mcg (0.4 mg) per day.

In myxedema coma or stupor, without concomitant severe heart disease, 200 to 500 mcg of SYNTHROID **Injection** may be administered intravenously as a solution containing 100 mcg/ml. Although the patient may show evidence of increased responsivity within six to eight hours, full therapeutic effect may not be evident until the following day. An additional 100 to 300 mcg or more may be given on the second day if evidence of significant and progressive improvement has not occurred. Like the oral dosage form, SYNTHROID **Injection** produces a predictable increase in the circulating level of hormone with a long half-time. This usually precludes the need for multiple injections but continued daily administration of lesser amounts intravenously should be maintained until the patient is fully capable of accepting a daily oral dose.

In the presence of concomitant heart disease, the sudden administration of such large doses of L-thyroxine intravenously is clearly not without its cardiovascular risks Under such circumstances, intravenous therapy should not be undertaken without weighing the alternative risks of the myxedema coma and the cardiovascular disease. Clinical judgment in this situation may dictate smaller intravenous doses of levothyroxine.

SYNTHROID **Injection** by intravenous or intramuscular routes can be substituted for the oral dosage form when ingestion of SYNTHROID **Tablets** is precluded for long periods of time.

How Supplied: SYNTHROID (sodium levothyroxine) **Tablets** are supplied as scored, color-coded compressed tablets in 6 concentrations: 25 mcg (0.025 mg)—orange . . . 50 mcg (0.05 mg)—white . . . 100 mcg (0.1 mg)—yellow . . . 150 mcg (0.15 mg)—blue . . . 200 mcg (0.2 mg)—pink . . . 300 mcg (0.3 mg)—green.

SYNTHROID (sodium levothyroxine) for **Injection** is supplied in 10 ml vials containing 500 mcg of lyophilized active ingredient and 10 mg of Mannitol, U.S.P. A separate 5 ml vial containing Sodium Chloride Injection, U.S.P. is provided as a diluent.

Directions for reconstitution: Reconstitute the lyophilized sodium levothyroxine by aseptically adding 5 ml of the Sodium Chloride Injection, U.S.P. to the vial. Shake vial to insure complete mixing **Use Immediately** after reconstitution. Discard any unused portion.

U.S. Pat. 2,889,363

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Testing in Humans: Who, Where & When.

the weight of ethical opinion:

Few would disagree that the effectiveness and safety of any therapeutic agent or device must be determined through clinical research.

But now the *practice* of clinical research is under appraisal by Congress, the press and the general public. Who shall administer it? On whom are the products to be tested? Under what circumstances? And how shall results be evaluated and utilized?

The Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions which it submitted on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, as its official policy recommendations. Here are the essentials of PMA's current thinking in this vital area.

1. PMA supports the mandate and mission of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research and offers to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its service to the Commission.

2. PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact upon it of existing laws, regulations and procedures.

3. When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on drug and device innovation.

4. PMA proposes that an appropriately qualified medical organization be encouraged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent clinical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct nontherapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.

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THE NEBRASKA MEDICAL JOURNAL

HOW DO YOU PLEAD?

I do not think we should ask the defendant in court how do you plead, for it is convicting a man out of his own mouth, which is contrary to the law here and in England, where much of our law came from; not being a lawyer, that is what I believe.

But we say where does it hurt, and have you been bleeding, and what other symptoms do you have, almost, but not quite, all the way up to what is wrong with you?

What do you think is the matter is something we do not ask, but we might. The patient is paying us to find out, and if he knows the answer, he doesn't need us, excepting for a second opinion.

Long ago, if you were sick, you went and sat in an empty space in the middle of town, and passersby would stop and ask what your symptoms were, and if someone else had had the same syndrome, he would tell you what he had done and how he came out; he had obviously survived.

Sometimes when we ask, the patient says you're the doctor, you find out. One doctor asked why the patient was dressed while in bed, and the sick fellow, who would not tell him what was the matter, said he couldn't get his clothes off because of the cast, so the doctor found he had a broken leg.

How well could we do without a history? Listen to the patient, a good doctor once said, he is telling you the diagnosis. But can we sometimes be led astray by the patient's storytelling? Is it possible that a thorough examination and complete laboratory testing will give us the answer?

Perhaps the defendant should say, don't ask me how I plead. You brought me here; if you have a case against me, prove it. The very word pleading makes you sound guilty, anyway.

When the patient has symptoms, the disease is often well established and the hour is late. It might be better if the patient came in without symptoms and without a history, and like the defendant, did not plead. A complete checkup would nip the trouble in the bud.

Someone once said that in the world of the future, the only crime would be having tuberculosis. We might say you seem to have heart disease, do you plead guilty or innocent?

Some of this might be good for law and for medicine. We could think about it. It won't hurt the defendant.

—F.C.

WHERE ARE THEY NOW?

1. The Unna boot.
2. Turpentine stupes.
3. The scultetus bandage.
4. Direct transfusions.
5. Fracture boxes.
6. Wards.
7. Before insurance.
8. Before Medicare.
9. House calls.
10. Stereoscopic x-rays.
11. Hypodermoclysis.
12. Proctoclysis.
13. Laudanum.
14. Poultices.
15. Mustard plasters.
16. Cupping.
17. Leeches.
18. Milk and typhoid injections.
19. Before early ambulation.
20. Ward rounds.
21. Charity cases.
22. Bloodletting.
23. Sippy diet.
24. Fahrenheit scale.
25. Scruples.
26. Baby formulas.
27. The pound, the inch, the grain, and the cc.

—F.C.

WHY DOES THE WRIST HAVE SO MANY NAMES?

Doctors have to learn the names of all the parts of the body, and this is proper, but we do not carry it to an extreme. We do not have separate names for all the different vertebrae, even though we must learn how they differ from each other. Instead, we refer to them as C6, and first lumbar, although we do say atlas and axis.

There are nonmedical names for some things, so that we say thigh bone and femur, and shin bone and tibia; it seems strange that there is no lay term for the humerus. But the situation has been worsened by making things needlessly complex in the wrist.

Of course, we like to call the wrist the carpus anyway. And the wrist bones are called ossa carpi, because os means bone; but os means an opening or mouth, too.

The navicular is the scaphoid, the lunate is the semilunar, the triangular is the triquetrum and is also the cuneiform, the greater multangular is the trapezium, the lesser multangular is the trapezoid (and that is confusing), the capitate is os magnum, and the hamate is the unciform bone. The pisiform is just the pisiform, bless it; I guess it is too small to have two names.

I know some of these names are old terminology, but it doesn't help. We even have to learn multangulum majus and minus.

Hamate is Latin and so is unciform, so Greek doesn't get into it. It seems to me that we could say W1, W2, and so on through W8 for the wrist bones, and devote our energies to more important things, and not have to remember that the triquetrum is the cuneiform.

I think anatomists are an ungodly lot and have made things more confusing than they needed to be. I am for my own W1 system, and we can even expand it to the rest of the body.

—F.C.

MY OWN DISEASE

I have noticed that when you dial a telephone number, the little round holes make tiny circles on the end of your finger. I use the middle finger when I dial, and at the end of a long day on the telephone, the end of my long finger is covered with a collection of faint circles.

I do not know if this is serious, and I cannot claim to have encountered people who have become ill after using the telephone, but I do not want to wait. I should dearly like to have a disease named after me, and should such a disease come to be, I hereby lay claim to its discovery, since I have unearthed its mechanism.

So much for etiology: when the big dialing circle goes around, the little circles, where you put your finger, go around too. Treatment consists in dialing with a pencil, using a telephone with push-buttons, asking a secretary to place your calls, or staying off the telephone. The push buttons are too close together and I keep missing them, so that I have to dial the number over and over again. I know dial can't be the right word when you are using a touch-tone telephone, but I don't know what else to call it. Anyway, push-button calling, with its excesses, may lead to other troubles, so I will claim that, too. The push-buttons play funny little songs that may prove depressing when heard over and over again.

This can lead to the busy signal, which is irritating, and to the you-have-just-dialed-a-wrong-number recording, which leaves the victim shaking. I claim all of these. O yes, and the not-getting-your-dime-back syndrome; that's mine, too.

—F.C.

ON TRAINING

You cannot study medicine from books alone, you have got to deal with people. Someone wiser than I said that people without books is like sailing without a map, but books without people is like never going to sea at all. And so as students, interns, and residents, we examine patients, we diagnose, and we treat.

Medical supervision means that the underling will take over the responsibility of a patient's care to a very large extent. But the surgical assistant must operate as he learns, so that he will acquire experience, and treat patients later without supervision, and then perhaps train others.

There is no other way for doctors to learn. We once had charity cases and we had wards. And those who did not pay their way may have known that this sort of things went on. There are degrees to training, and the assistant can be eased along the way gradually, and he can be assisted by the fully trained teacher, but the point remains.

And now the charity case is gone, as welfare and medicare pay the way; and the wards are gone, too. So teaching must be done with the once sacrosanct private patient. If anything is changed, it is that more training than ever goes on now. When charity cases disappeared, it was thought that training might stop, but it could not, so that where teaching once applied to the poor, it now involves the poor and the rich alike, and the private patient and the ward patient (now in a semiprivate room) are brothers and sisters under the skin. Well, almost.

There is no other way, as I say, but it is an interesting question.

—F.C.

The Significance of the HL-AB27 Antigen in a Rheumatologic Practice*

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and

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THE "rheumatoid variants" (ankylosing spondylitis, Reiter's syndrome, psoriatic arthropathy, enteropathic arthropathy, and juvenile polyarthritis) are a group of disease entities about which considerable confusion regarding the classification exists. It has been clinically useful and convenient to give these arthropathies separate identities, but considerable overlap exists among these disorders. They remain seronegative for rheumatoid factor, primarily involve the axial skeleton, show an asymmetrical distribution of joint inflammation, demonstrate a high frequency of uveal tract inflammation, and invoke a chronic granulomatous inflammatory response in ligaments, periosteum, and cartilage to a greater degree than in the synovium. The "rheumatoid variants" sharing of strong positivity for the second segregant series of histocompatibility antigen (HL-AB27) lends support to the fact that they may share common etiologic factors and may represent a spectrum of a single disease entity. Further studies are necessary to determine how HLA antigens influence the pathogenesis of these various rheumatic disorders.

Our knowledge of histocompatibility antigens has come from advances in transplantation immunology. It has been demonstrated that the rejection of transplanted tissues depends upon genetically determined "histocompatibility antigens" located on the surface of leukocytes and cells in the transplanted tissues. The genes controlling the inheritance of these antigens are known as "histocompatibility genes." Most leukocyte antigens are determined at one chromosomal region (evidence suggests that the various loci are on the autosomal chromosome C6) and they are segregated into two loci (the first with at least 12 antigen alleles and the second with at least 16 antigen alleles). There are two antigens from each locus; therefore, each individual possesses four HL-A antigens which would result in many thousands of possible phenotypes.

In 1973, independent and virtually simultaneous studies from England and the United States reported that the histocompatibility antigen (HL-AB27) was present in a very high proportion of patients with ankylosing spondylitis and their relatives. HL-AB27 was found in 72 of 75 (96%) in the British study and in 36 of 40 (90%) in the American report. This incredible frequency of the antigen in this group of subjects contrasted sharply to its frequency in control populations (8% in Caucasions, 4% in Blacks, 0% in Japanese). It has been estimated that an individual born with this antigen would be 300 times as likely to develop spondylitis as those without the antigen and that approximately three million Americans may have undiagnosed but symptomatic ankylosing spondylitis on the basis of group screening of the HL-AB27 positive individuals. A redefinition of ankylosing spondylitis as a broader disease process is necessary and further epidemiological studies are necessary to determine the degree of risk and what disorders to expect in an HL-AB27 positive asymptomatic individual. It must be emphasized that other unrecognized genetically determined factors are operative because there is an occasional patient with definite ankylosing spondylitis that is HL-AB27 negative.

Reiter's syndrome was next studied because of the frequent association of spondylitis of this entity. The British found 25 or 33 (76%) and the Americans found 23 of 24 (96%) were HL-AB27 positive. A recent study of patients with incomplete Reiter's syndrome (absence of urethritis or conjunctivitis) demonstrated HL-AB27 positivity in 12 of 13 (92%). Circumstances in which Reiter's disease is acquired suggest a reaction to a sexually transmitted infection; however, recent reports suggest a strong association between HL-AB27 and the Reiter's syndrome following Shigella dysentery. Only about 25 percent of HL-AB27 positive patients with Reiter's syndrome show evidence of spinal involvement and it therefore becomes evident that the spectrum of seronegative rheumatic disease broadens considerably.

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Studies in Finland have revealed the presence of HL-AB27 in 43 of 49 (88%) patients with Yersinia arthritis (an acute peripheral arthritis usually occurring a few weeks after an intestinal infection with Yersinia enterocolitica). These patients do not develop skin, mucous membrane or eye involvement; however, a small number do develop sacroiliitis and/or uveitis. The same investigators have reported HL-AB27 positive in 14 of 15 (93%) patients with arthritis following Salmonella infection. It is possible that Reiter's disease following urethritis or dysentery and Yersinia and Salmonella arthritis all represent abnormal immune responses to infection in individuals who have susceptibility which is partly inherited.

The arthropathy associated with chronic inflammatory bowel disease manifests clinically in two distinct ways. The peripheral arthropathy has its onset with or usually after the development of colitic symptoms, affects the lower extremity joints in an asymmetrical fashion, and shows a high degree of correlation with the activity of the underlying bowel disease. On the other hand, colitic spondylitis may occur before the onset of overt intestinal disease and its clinical course is unrelated to the bowel disease activity or therapy. HL-AB27 is not increased in ulcerative colitis or Crohn's disease in the absence of arthritis, and probably is not increased in enteropathic peripheral arthritis. Recent studies have shown two-thirds of patients with ulcerative colitis and spondylitis and 80 percent of patients with Crohn's disease and spondylitis tend to be HL-AB27 positive. Thus, a patient with chronic inflammatory bowel disease who is HL-AB27 positive has a remarkably high risk of developing ankylosing spondylitis and also of developing iritis.

Psoriatic arthritis occurs in a small percentage of patients with psoriasis. It typically manifests itself peripherally, but a few go on to develop psoriatic spondylitis. In psoriatic arthritis, HL-AB27 is present in a frequency greater than controls, but in psoriatic spondylitis HL-AB27 is significantly increased with a frequency of 35 percent.

A study of juvenile rheumatoid arthritis patients, selected with a bias toward those who had developed sacroiliitis, showed the incidence of HL-AB27 positivity to be significantly increased. These patients were predominantly male, had an earlier age of onset, presented with polyarticular disease, and were usually seronegative. Recent studies have disputed this relationship between HL-AB27 positivity and juvenile rheumatoid arthritis; however, it would seem that HL-A typing might help to define those patients at increased risk of developing spondylitis and/or uveitis.

Acute anterior uveitis is known to be associated with ankylosing spondylitis, Reiter's syndrome, ulcerative colitis, Crohn's disease, Yersinia arthritis and psoriatic spondylitis. HL-AB27 positivity was found in 58% of 100 patients with acute anterior uveitis.

Utilizing this background information, we obtained HL-AB27 studies on forty-two individual patients during a one year period. These forty-two patients represent a small percentage of rheumatologic patients seen during this time span. A selection bias was necessarily present because of the cost of the test itself and because of the authors' prior knowledge of situations where the test might prove useful in the diagnosis of and in the genetic counseling of certain rheumatologic disorders. Nevertheless, a retrospective analysis of these forty-two patients substantiates the frequencies of HL-AB27 positivity in certain of the "rheumatoid variants" and the importance of the test in certain clinical situations. All nine patients with definite ankylosing spondylitis were positive for HL-AB27 antigen. In the four females the test was obtained to confirm the diagnosis and in all nine patients HL-AB27 positivity was used as an adjunct in genetic counseling. Seven of nine patients (78%) with possible ankylosing spondylitis were positive for HL-AB27 antigen. Characteristic roentgenologic changes were absent in these individuals and the test was used to assist in establishing evidence of the diagnosis. Thus, HL-AB27 positivity was present in 16 or 18 (89%) patients with definite or possible ankylosing spondylitis. Nine patients with mechanical low back pain were subjected to HL-AB27 analysis to help exclude the diagnosis of ankylosing spondylitis, to help allay the patient's fear of the disorder because of a positive family history of spondylitis; all nine patients were HL-AB27 negative. Three patients with Reiter's syndrome were HL-AB27 positive and three of four patients with incomplete Reiter's syndrome were HL-AB27 positive; therefore, six of seven (86%) of patients with Reiter's syndrome were positive for HL-AB27. Studies in these instances were obtained to help differentiate the peripheral arthritis of inflammatory bowel disease, psoriasis, and atypical rheumatoid arthritis from that of Reiter's syndrome. The patients with peripheral arthritis associated with psoriasis and inflammatory bowel disease and one patient with juvenile rheumatoid arthritis were studied in an effort to determine the risk of future spondylitis. Only the patient with juvenile rheumatoid arthritis was HL-AB27 positive.

The significance of the test for HL-AB27 can be summarized by saying that it is as useful a laboratory aid as is the rheumatoid factor, serum uric acid, and antinuclear antibodies. The test is not widely available and discretion should be utilized in ordering this test because of its significant cost. In ankylosing spondylitis patients it would seem useful to substantiate the presence of the disease in females, to aid in the diagnosis of possible ankylosing spondylitis (roentgenologically negative), and to reassure the patient with mechanical low back pain. In patients with Reiter's syndrome, it would seem useful to assist in establishing the diagnosis of incomplete Reiter's syndrome (no conjunctivitis or urethritis), to differentiate Reiter's syndrome from culture negative or partially treated gonococcal arthritis, and to help differentiate the peripheral arthritis of Reiter's syndrome from that of psoriasis, inflammatory bowel disease, and atypical rheumatoid arthritis. The risk of eventual spondylitis is significantly increased in those HL-AB27 positive individuals with inflammatory bowel disease, psoriasis, Yersinia and Salmonella arthritis, juvenile rheumatoid arthritis, and acute anterior uveitis. HL-A antigens are inherited in a normal mendelian fashion and the child of a HL-AB27 positive parent has a 50 percent chance of inheriting the gene. Recent studies suggest that 25 percent of these HL-AB27 positive persons eventually become symptomatic; therefore, early detection of those at risk could conceivably lead to the institution of early prevention and treatment measures that are or will be available.

SUMMARY OF HL-AB27 STUDIES

	HL-AB27 (+)	HL-AB27 (-)
Ankylosing Spondylitis	16	2
Reiter's Syndrome	6	1
Mechanical Low Back Pain	0	9
Psoriatic Arthritis	0	2
Enteropathic Arthritis	0	3
Atypical Rheumatoid Arthritis	0	2
Juvenile Rheumatoid Arthritis	1	0
	23	19

SUMMARY OF HL-AB27 STUDIES

	HL-AB27 (+)		HL-AB27 (-)	
ANKYLOSING SPONDYLITIS				
Definite Male	5	9	0	0
Definite Female	4		0	
Possible Male	5	7	2	2
Possible Female	2		0	
		16		2
MECHANICAL LOW BACK PAIN				
Male	0	0	6	9
Female	0		3	
		0		9

SUMMARY OF HL-AB27 STUDIES

	HL-AB27 (+)		HL-AB27 (-)	
REITER'S SYNDROME				
Classical (All ♂'s)	3	6	0	1
Incomplete (All ♂'s)	3		1	
		6		1

Exercise in Weight Reduction

L. M. HURSH, M.D.

BACK in the 1930s we were taught that exercise was of no value in aiding weight reduction. The basis for this was largely arm-chair philosophy and the thinking went something like this. The extra energy expenditure necessary for one to lose one pound of fat could be represented by a person walking 28 miles. If one were to walk 28 miles this exercise would so stimulate the appetite that they would consume energy over and above what was being lost by the exercise; therefore there was no value in exercise per se for weight reduction. I think there are very few who still hold this view.

How much walking does it take to lose one pound of fat? A pound of body fat is equivalent to approximately 3250 calories. Approximately 6.2 calories are expended each minute when one walks 4.2 miles per hour. At this rate one would have to walk for 524 minutes (524 min x 6.2 calories = 3250 calories) or 8.7 hours. If one were traveling at 4.2 miles per hour he would have to walk 36.5 miles (8.7 hours x 4.2 mph = 36.5 miles) to lose one pound of fat.

Others[1] have expressed this in different ways such as:

19 minutes of walking equals one apple
14 minutes of jogging equals one martini
250 hours of bicycle riding equals 25 pounds, etc.

Thus these are your odds if you do no dieting at all.

On the other hand if you wish to diet you can augment this exercise to whatever degree you wish.

To lose one pound of fat it will take the following time at the following rate:

Deficit of 100 cal/day equals 32.5 days
Deficit of 500 cal/day equals 6.5 days
Deficit of 1000 cal/day equals 3.2 days

In my own experience with patients, I've found dieting by itself very unrewarding. Most physicians have little more than a one percent success rate which really is nothing to write home about. For success it is necessary to change one's life style, and this is extremely difficult.

Perhaps the question which should first be answered is, "Should one reduce his weight and why?" There is no data to support a program of weight reduction for health reasons unless one is at least 25 percent overweight according to the standard tables of ideal weight.[2]

Perhaps a more pertinent question is, "Should one become fit, and what is fitness?" Fitness is a term used to express one's work capacity. Fitness does not come from dieting alone, especially for those who have no need to diet.

Fitness is often expressed subjectively as feeling better or looking better. There are also some objective measurements of fitness such as reduction in blood pressure, obesity and cholesterol (if one thinks one's cholesterol is important).

Why are some people fat and others thin? Do they handle the food they eat differently? The answer is yes, they do, but we don't know why or how. We do know that if thin people overeat, they will increase their heat production by as much as 50 percent and burn off this extra food, while when an obese person overeats, he is unable to increase his heat production to the same degree so that some of this excess is laid down as fat. Miller[3] has shown that this heat production can be doubled by exercise following the meal. This suggests that programs for weight reduction should take advantage of exercise after eating.

The objective of an exercise program is of course to exercise one's muscles to produce a heart rate of 70-85 percent of maximum for one's age.[1] Weight lifting and isometrics are of no value. The exercises should be those that significantly augment the flow of blood to the large muscles and the heart. They should be aerobic exercises, those that can be maintained for 20 minutes. These should be performed on alternate days, three times each week.[1] The quickest way to cause an exercise program to fail is to try and do too much too fast. These exercises should not be competitive even with one's self.

So much for the reasons to develop normal weight and fitness. Should there be any restriction for such a program based on age alone? The answer of course is "no," providing proper guidelines are followed. Dr. Herbert A. DeVries[7] recently studied 112 men with a mean age of 69.5 years (range of 52-88). Of this group approximately 50 percent remained in the study after six weeks, 30 percent after 18 weeks and 15 percent after 42 weeks. During the entire 18-month study there was not a single untoward medical incident, not even a case of syncope. This, of course, does not mean that anyone regardless of age can go out and exercise, but it does show what can be accomplished when one uses proper screening and guidelines.[5,6]

Guidelines[4]

1. A physical examination including a health history and an EKG should be done for everyone. If patients are over 40, they should also have an exercising EKG at 70-85 percent of heart rate for their age (the same as the exercising they will be doing). Patients should be told to stop activity any time they experience breathlessness, fatigue, angina or light-headedness.

2. Medical problems restricting stress testing and exercise participation are:

Absolute contraindication:

a. Recent myocardial infarction
b. Recent pulmonary embolism
c. Any severe valvular disease
d. Cardiac enlargement with gallop rhythm
e. Runs of ventricular tachycardia
f. High degree heart block
g. Untreated atrial fibrillation
h. Decompensated right and left-sided heart failure
i. Uncontrolled hypertension
j. Uncontrolled diabetes
k. Marked obesity
l. Vascular aneurism
m. Acute myocarditis
n. Those with small pulse pressures and large hearts

Relative contraindications:

a. Any acute or chronic infectious disease
b. Diabetes requiring insulin therapy
c. Hepatic disease especially if jaundiced
d. Hemorrhagic disease including anemia
e. History of recent or active GI bleeding
f. Recent surgery
g. Renal disease with acidosis
h. Acute or chronic lung disease or severe pulmonary inefficiency
i. Coronary or valvular disease
j. Any significant ECG abnormalities
k. Hypertension of 180/110 unless no target organ involvement
l. Intermittent claudication or thrombophlebitis
m. Fractures, dislocation, etc., limiting exercise
n. Any arthritic condition requiring medication
o. Any functional inadequacy of musculoskeletal system
p. Uncontrolled convulsive disorder
q. Intracranial bleeding within preceding 12 months

The Exercise Program[1]

Those with several coronary risk factors should have a progressive walking program for several weeks before starting, others may go ahead. The daily program should be divided into 3 portions.

1. *Warm-up period* — 5-10 minutes — count pulse 10 sec x 6 = rate. Rate should not be over 50 percent of maximum.

2. *Exercising period* — Start exercising, easy for three minutes. Count pulse — if still below 70 percent increase exercise for another three minutes and again count the pulse — continue till it is 75 percent maximum. Continue another three to five minutes. If over 85 percent, slow down, etc. May not be able to keep the rate between 75-85 percent for a full 20 minutes when starting.

3. *Cool down period.* Continue walking — count pulse. If pulse is not less than 100 after 10 minutes the exercise was too strenuous. *Keep a record.* Conditioning will take 6-10 weeks. Be careful in hot weather.

In summary, exercise programs are useful in weight reduction and the development of physical fitness when proper guidelines and precautions are observed.

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Diuretics in Antihypertensive Therapy*

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and

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ORAL diuretics are the most frequently prescribed agents for the treatment of high blood pressure. The benzothiadiazine derivatives (thiazides) were the first oral diuretics introduced. Other oral agents of different chemical characteristics and potency have been developed (e.g., chlorthalidone, furosemide), but the thiazides remain the diuretic drugs of choice in hypertension uncomplicated by renal dysfunction. The potassium-sparing diuretics — spironolactone and triamterene — also have antihypertensive properties, but they are usually reserved for use in hypertension of adrenal origin or in combination therapy with the thiazides to prevent or correct hypokalemia.

Thiazides are thought to lower blood pressure by at least two different mechanisms.[1] The *initial* reduction of blood pressure, occurring over the first 3-4 weeks of therapy, is due to a loss of extracellular fluid and plasma volume through diuresis. This is associated with a fall in cardiac output and a resultant fall in blood pressure. The fall in blood pressure is due totally to volume depletion, since peripheral resistance remains unchanged and may even rise slightly due to reflex adjustments.

Thiazide-induced volume depletion is partially alleviated after several weeks of continuous therapy. Extracellular fluid and plasma volumes tend to return to normal levels, and the diminished cardiac output is partially or totally restored. The *continued* reduction in blood pressure is now a manifestation of reduced total peripheral resistance.

Side effects associated with thiazide usage are not a serious problem, and these drugs are generally well-tolerated. Hyperuricemia may be present in up to 50% of all patients on thiazide therapy, due to an inhibition of renal tubular secretion of uric acid. Thiazide-induced hyperuricemia rarely necessitates treatment except in patients with gout or some degree of renal failure, in which cases probenecid or allopurinol, respectively, are indicated.

Hypokalemia is another frequent and important complication of thiazide usage, occurring in up to one third of all patients. However, it is rare for the serum potassium to fall below 3 mEq/L. Treatment, if needed, may range from diet therapy (rarely sufficient) through oral potassium supplements (generally poorly tolerated) to the use of potassium-sparing diuretic in conjunction with a thiazide. It should be remembered, however, that patients receiving a digitalis preparation are more prone to intoxication in the presence of hypokalemia. In these patients frequent monitoring of serum potassium and/or adjustment of cardiac glycoside dosage is necessary when thiazides are administered.

Elevation in blood glucose is a third major side effect of the thiazides. Although the incidence may approach 15%, hyperglycemia is a problem only in the diabetic patient and can usually be controlled by diet or alterations in the dosage of antidiabetic medications.

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Minor elevations in BUN are also frequent during thiazide therapy. Other side effects rarely encountered include skin rash, photosensitivity reactions, and blood dyscrasias. These may often be alleviated by switching from a thiazide to a chemically different oral diuretic, such as chlorthalidone. The absence of significant postural hypotension indicates that autonomic function is preserved during thiazide usage.

The oral diuretics should be considered the cornerstone upon which an effective antihypertensive regimen may be constructed. While they are often useful alone in mild hypertension, their greatest value lies in combination therapy. Diuretics effectively counter the sodium and water-retaining properties common to most other antihypertensive medications, and thus alleviate the "pseudo-resistance" that often develops and limits the effectiveness of more potent agents. In addition, combination therapy with lower levels of more potent drugs is possible with the use of optimal doses of an oral diuretic. This affords effective control of the patient's hypertension while minimizing the side effects due to the more potent medications.

Oral diuretic agents induce a compensatory increase in plasma renin activity. Thus, they are most effective in patients with low or normal renin levels, and may actually be contraindicated in certain high renin forms of hypertension.

There is little to be gained by pushing the dose of oral diuretics beyond certain maximum daily limits (Table 1). These doses approximate the maximum blood pressure lowering dose, and the incidence of side effects increases without further benefit at higher doses. The effectiveness of thiazide diuretics diminishes rapidly as renal function deteriorates, and thiazides frequently reduce renal function still further. Thus, these diuretics are of most value in uncomplicated hypertension.

Furosemide, a more potent non-thiazide diuretic, is available in oral and parenteral forms for use in patients with poor renal function or those who become refractory to thiazide diuretics. The average daily dose is 40-80 mg/day and, in contrast to the thiazides, the effectiveness of furosemide increases with dose increments. The more powerful loop diuretics, furosemide or ethacrynic acid, actually have a shorter duration of action than the thiazides and must be given 2-3 times per day to effect 24 hour control of blood pressure. Occasionally a 2-3 day course of loop diuretics will restore the effectiveness of a thiazide-based regimen.

A recent prescription survey in Nebraska revealed three common errors in the use of diuretics.[2]

1. Dose too high or too frequent — the flat dose-response characteristics of thiazide

Table 1
SUMMARY OF
AVAILABLE THIAZIDE DIURETICS

		Maximum Dose mg/day	Optimum Frequency of Administration
Clorothiazide	(Diuril)	1000	B.I.D.
Flumethiazide	(Ademol)	1000	B.I.D.
Hydrochlorothiazide	(HydroDiuril)	100	B.I.D.
Hydroflumethiazide	(Saluron)	100	Q.D.
Bendroflumethiazide	(Naturetin)	5	Q.D.
Benzthiazide	(Exna)	100	B.I.D.
Trichlormethiazide	(Naqra)	4	Q.D.
Methylclothiazide	(Enduron)	5	Q.D.
Polythiazide	(Renese)	8	Q.D.
Cyclothiazide	(Anhydron)	2	Q.D.
*Chlorthalidone	(Hygrotin)	100	Q.D.
*Quinethazone	(Hydromox)	100	Q.D.

*Not a thiazide, but has similar mechanism of action.

diuretics limit their effectiveness above the maximal total dose shown in Table 1. Only the loop diuretics need to be prescribed more than twice a day and some agents can be given once a day.

2. Excessive use of loop diuretics — these should be reserved for patients with renal function less than one-third of normal.
3. Excessive use of potassium-sparing diuretics — only patients with serum potassium < 3 mEq/L require this drug in addition to a thiazide diuretic. Some low renin patients may be uniquely sensitive to spironolactone or triamterene. However, fewer than 10% of the usual hypertensive patient population actually need this more expensive formulation.

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My Practice

D. W. KINGSLEY, SR., M.D.

AFTER two degrees from Cornell University and a medical degree from Harvard University and exposure to surgical practice in the Presbyterian Hospital in Philadelphia, I started practice in Hastings in the fall of 1928. My early enthusiasm and ideals relating to the profession were shocked to learn that fee splitting was an accepted practice if one wished to survive, so for some years I nearly starved to death and had to do a general practice for economic survival. Fortunately, due to efforts of the American College of Surgeons and many others like myself, this fee splitting has largely become a thing of the past and is not a problem to be faced by beginners in the profession in most of the country.

The big changes that have taken place over these years for the benefit of mankind have been the greatly increased professional training given to our medical students compared to former years, the tremendous advancement in the surgical procedures for neurovascular disease, and the increased facilities available for diagnostic procedures.

The disappointing developments which have taken place over these years are (1) the loss of personal contact between physician and patient which is the result of many factors I will not attempt to enumerate and (2) the malpractice problem which if not solved will, in my opinion, result in the elimination of private practice.

My fifty years have been very rewarding to me in that I have made many friends and possibly made minor contributions to the health of my country and my community. Not so many years ago, it was considered unethical for medical men to take part in political activity. It seems to me that this is a serious mistake, for if one considers the serious economic plight of the country, its confused foreign policy, the selfishness, dishonesty, and ignorance of many of our political leaders; that it is vital that all citizens including our own profession take a most active part in the decisions which are vital for our economic, physical, and spiritual health.

Acute Leukemia Presenting with Pericardial Involvement

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and

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PART I

Although acute leukemia presenting with pericardial involvement has been reported only very rarely, four cases were seen in two years in a referral hematology practice. The signs and symptoms at diagnosis are dominated by the pericardial disease and are reflected in chest x-ray and EKG changes. The outlook is dependent to a large degree of the cell type of the leukemia. Lymphoblastic pericarditis responds favorably to systemic chemotherapy with gradual resolution, rarely causes signs of acute tampanode, and is usually not an ominous prognostic sign. Monoblastic or myeloblastic pericarditis frequently causes signs of acute tamponade, appears not to be affected by systemic chemotherapy and is an ominous prognostic finding. Combined pericardiectomy, pericardial radiation, and systemic chemotherapy are suggested as a therapeutic approach.

MOST of the signs and symptoms in acute leukemia arise from the absence of normal hematopoietic elements: infection because of a lack of normal neutrophils, bleeding with low platelets and complaints related to anemia. It is important to remember that there are large numbers of malignant cells present in acute leukemia; these, like any other malignant cells, can cause symptoms by invading and damaging body organs. Acute leukemia has been reported to involve essentially every organ in the body.[5] Although the pericardium is frequently involved at autopsy, reports of clinically significant pericardial leukemia are rare.

This paper reports four cases of acute leukemia observed over a 24 month (2 year) time span that had symptoms of pericardial leukemia as an initial manifestation and to emphasize the importance of prompt recognition, aggressive treatment and the type of leukemia as related to the clinical prognosis.

Case Reports

Case 1

A 15 year old white male was well until 5 days prior to admission when he developed a temperature of 104 degrees F., vague malaise, associated with a cough and retrosternal chest pain. Antibiotics were administered without effect. Further evaluation revealed a WBC of 320,000/mm3, hemoglobin 9.4 gms%, platelet count was 66,000 mm3. A differential revealed 1% segmented neutrophils, 6% lymphocytes, 20% mature monocytes, 22% immature monocytes and 51% monoblasts. Auer rods were present. Cytochemically the blast cells showed no staining with Sudan black B, PAS or chloracetate esterase. The myeloperoxydase reaction was weakly positive. The bone marrow was similarly involved with young monocytes and monoblasts and a diagnosis of acute monoblastic leukemia was made.

Physical examination revealed an acutely ill patient with a temperature of 101 degrees F. Blood pressure was 100/64 with no paradoxical change. There was slight blurring of the left fundus and marked diffuse lymphadenopathy up to 2-3 cm in diameter. The spleen was palpable 6 cm below the left costal margin and the liver 4 cm below the right costal margin. The chest was clean to auscultation. Cardiac examination revealed a regular sinus rhythm of 100 per minute. There was a faint grade I/VI systolic ejection murmur at the apex, and a pronounced two phase friction rub markedly exacerbated by deep breathing along the left sternal border.

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Chest x-ray (Fig. 1) revealed marked generalized cardiac enlargement with segmental pneumonitis in the basilar portion of the right lower lobe. A heart pool scan and angiocardiogram using technetium revealed a massive pericardial effusion along with a definite delay in transport through the right ventricle and pulmonary cycles indicative of tamponade (Fig. 2). Therapy was begun with cytosine arabinoside 150 mg given as a one hour infusion every 12 hours along with 80 mg of prednisone daily and 2 mg of vincristine. Serial chest x-rays revealed an increase in cardiac diameter associated with increasing respiratory distress and mild hypotension. Pericardiocentesis recovered a very viscous, bloody fluid that was difficult to aspirate and did not clot. A pericardial window was required to adequately relieve the tamponade, and 800 ml of bloody pericardial fluid was removed. The procedure, however, failed to significantly improve the patient. Continued respiratory distress was present along with increasing splenomegaly. With two days of antileukemic therapy the white count had not significantly changed. Pulmonary edema developed, and the patient expired.

At autopsy the epicardium was covered with a thick, fibrinous exudate. Microscopically monocytoid cells were found in extensive numbers infiltrating the myocardium and the pericardial sac. The spleen weighed 370 gm. The venous sinuses were engorged with monocytoid cells. Multiple sections of bone marrow revealed it to be solidly cellular and composed primarily of monocytoid elements. Multiple lymph nodes revealed a diffuse infiltration of monocytoid cells, completely obliterating normal architecture.

Case 2

A 29 year old black female was well until three weeks prior to admission when she developed a 25 lb weight loss, dyspnea on exertion, extreme fatigue, and spiking temperatures. There was no history of bleeding or easy bruisability.

Physical examination revealed an acutely ill, black female with a temperature of 103 degrees F. There were scattered ecchymoses and petechiae over the extremities. The gingiva were slightly hypertrophied. A 1 cm lymph node was palpable in the left axilla but there was no other adenopathy. The

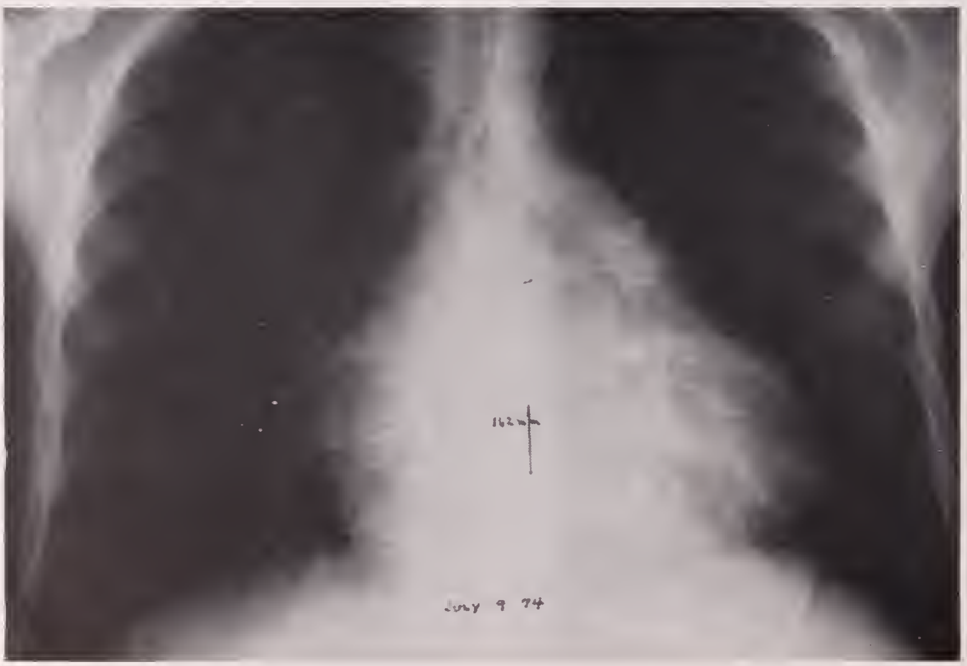

Figure 1. Chest film, Case 1, showing marked cardiomegaly and typical "water bottle" deformity suggesting pericardial effusion.

chest was clear to auscultation and percussion. Cardiac examination revealed a sinus tachycardia of 150 per minute. Heart tones were diminished in intensity. No murmurs were present, but a transient friction rub was present at the apex. The spleen was palpable 1 cm below the left costal margin.

Laboratory data revealed a hemoglobin of 7.6 gms% with normal red cell indices. The white count was 25,000 mm3. Differential showed 21% segmented neutrophils, 5% bands, 1% metamyelocytes, 1% basophils, 16% lymphocytes, 4% monocytes, 27% young monocytes, 26% unclassified blasts and 3 nucleated red cells observed per 100 white cells. The platelet count was 43,000 mm3 with .3% reticulocytes. The uric acid was elevated at 8.7 mg/100ml. The LDH was markedly elevated to 746 IU, the SGOT to 100 IU. A prothrombin time was 30.5 seconds (control 11 seconds), partial thromboplastin time 67 seconds (control of 27) and thrombin time 14.5 seconds (control of 12 sec). Fibrin split products were 1:128 ugm/ml. Schistocytes and burr cells were noted in the peripheral smear. A bone marrow was diagnostic of acute myelomonocytic leukemia.

Chest x-ray revealed mild cardiomegaly with left ventricular prominence. Therapy was begun with cytosine arabinoside 175 mg IV push every 12 hours along with 2 mg of vincristine and 50 mg of hydrocortisone succinate intravenously every 8 hours. The patient continued to have a tachycardia with rates of 150 to 180. EKG revealed a sinus mechanism. Digitalis and propanolol were administered without significant response. Severe midsternal pain radiating to both arms and hands developed along with hypotension. The chest pain and tachycardia continued and the patient suddenly expired twelve hours after admission.

At autopsy the significant findings were a fibrinous pericarditis with pericardial effusion. The pericardial sac was thickened due to a dense leukemic infiltrate. Immature mononuclear cells were also infiltrating the myocardium. The spleen weighed 300 gm and was similarly involved with a leukemic infiltrate. Multiple large lymph nodes were found in the thorax and periaortic regions and were similarly involved. All postmortem cultures were negative.

Case 3

A 6 year old white male was well until one week prior to admission when he developed

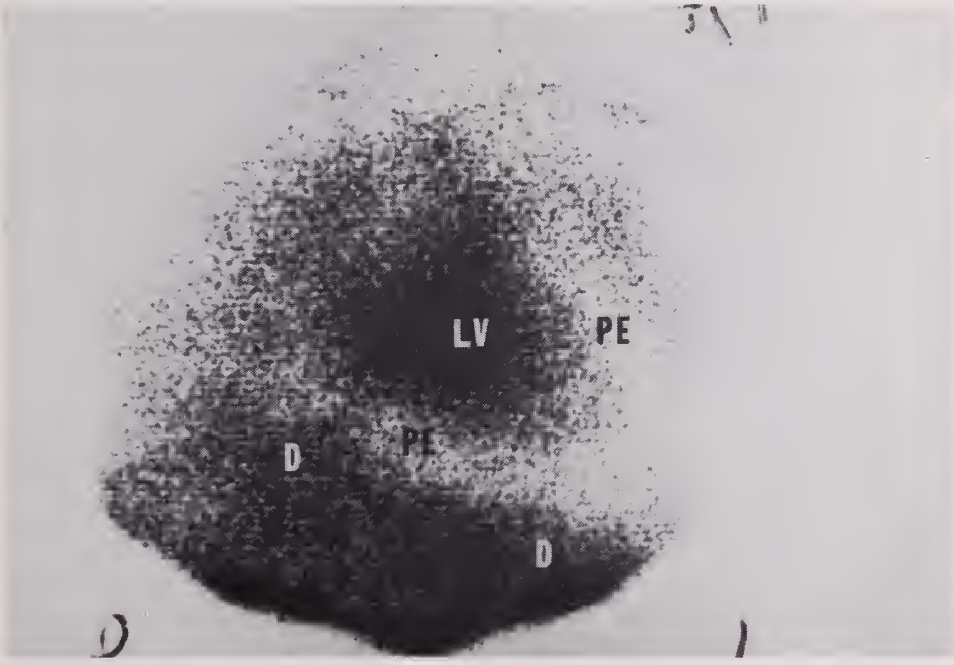

Figure 2. Heart pool scan using technetium. LV (left ventricle), D (diaphragm), and PE (pericardial effusion).

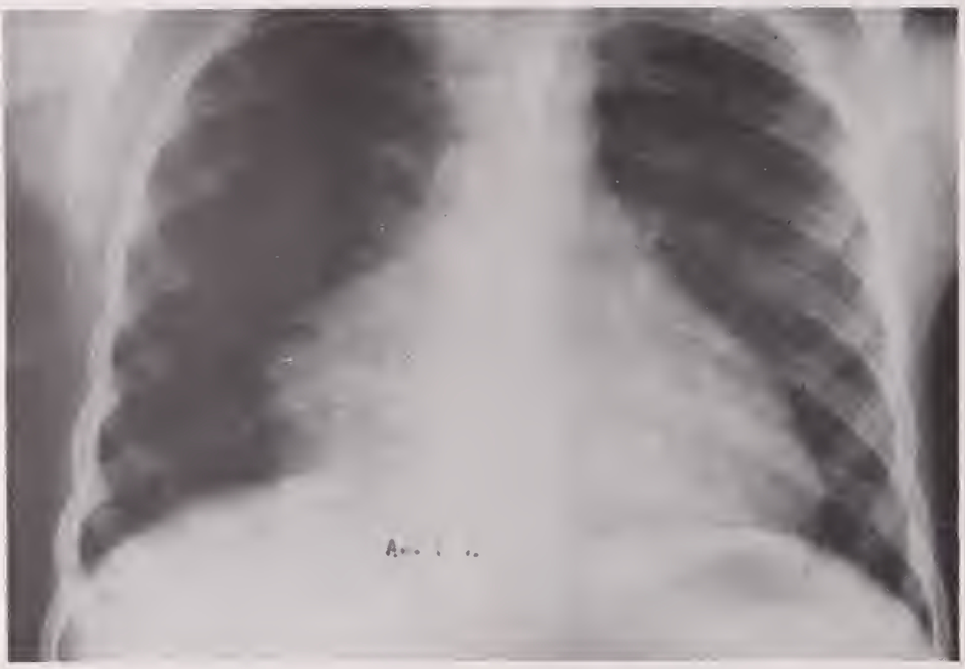

Figure 3 (a). Chest film, Case 4, after resolution of mediastinal mass demonstrating persistent marked cardiomegaly with biventricular type enlargement.

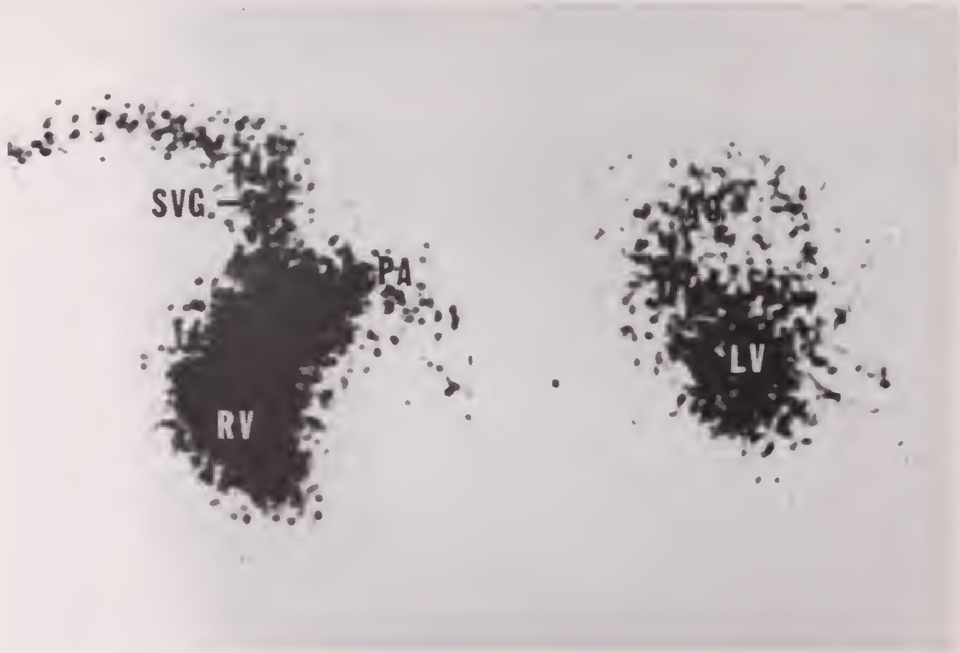

Figure 3 (b). Heart pool scan using technetium. Cardiac chambers are small indicating cardiac enlargement is due to pericardial effusion. SVC (superior vena cava), RV (right ventricle), PA (pulmonary outflow tract), LV (left ventricle), and AO (aorta).

persistent fever and cough. Because of mild respiratory distress a chest x-ray was obtained which revealed a large anterior mediastinal mass that extended to the margin of the right lateral chest wall anteriorly and projected across the midline into the upper part of the mediastinum. The cardiac shadow was displaced to the left and was enlarged.

Physical examination revealed diffuse lymphadenopathy in both anterior and posterior cervical chains, extending into the supraclavicular space and in both axilla up to 1-2 cm in diameter. The spleen was palpable 2-3 cm below the left costal margin and the liver was palpable at the right costal margin. Chest examination revealed decreased breath sounds in the right upper lobe with an increased percussion noted in the right lower lobe and over the left hemithorax. Cardiac examination revealed the PMI to be displaced to the left anterior axillary line. No thrill was present. Cardiac tones were of good intensity and quality and no murmurs were present.

The hemoglobin was 13.8 gms%, white blood count 26,000 mm3 with a differential of 15% segs, 25% bands, 1% metamyelocytes, 2% myelocytes, 40% lymphocytes, 2% monocytes and 15% lymphoblasts. The platelet count was 252,000 mm3 with 1.3% reticulocytes. The uric acid was normal. The LDH was increased to 575 IU. A bone marrow was diagnostic of acute lymphoblastic leukemia. The cells contain no PAS, oil red-o, or peroxidase positive material.

Therapy was begun with prednisone 60 mg/m2 daily and vincristine 2 mg/m2 on a weekly basis. By the second week the white count had returned to 4500 with a normal differential. A repeat chest x-ray revealed complete resolution of the anterior mediastinal mass. However, marked enlargement of the cardiac silhouette was still present. At the end of four weeks of induction therapy the bone marrow had returned to normal; however, the cardiac silhouette continued to be enlarged (Fig. 3a). Repeat cardiac examination and EKG were within normal limits. A technetium cardiac pool and a pulmonary blood flow studies indicated normal pulmonary vascular blood flow. The cardiac pool was of normal size indicating either the presence of a large pericardial effusion or massively thickened pericardium (Fig. 3b). Consolidation chemotherapy was begun with 6-MP daily and methotrexate every fifth day. By the second month of maintenance chemotherapy the cardiac shad-

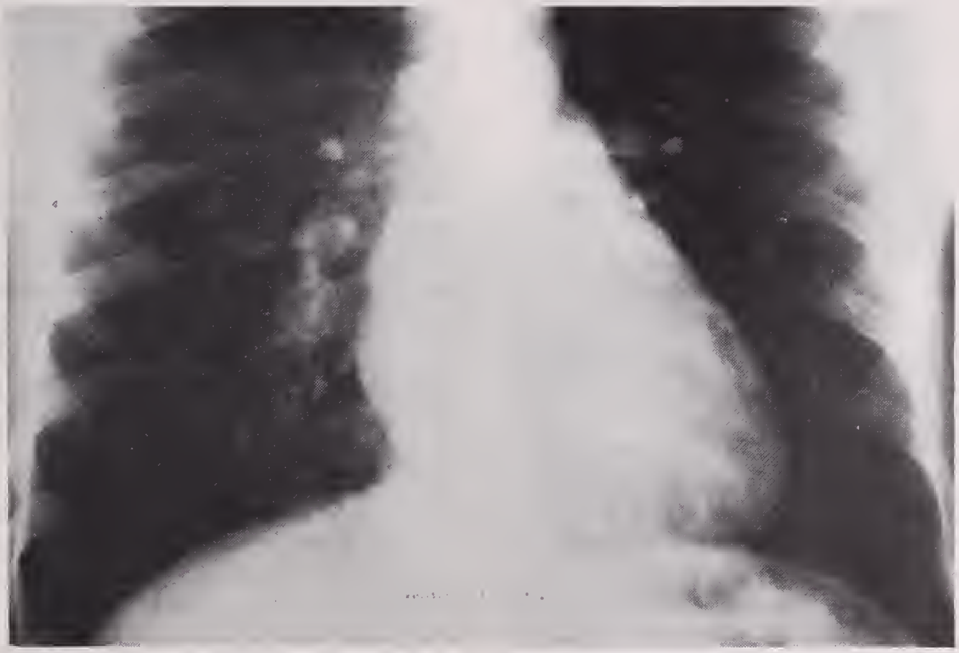

Figure 4. Chest film showing complete resolution of pericardial effusion and normal cardiac size.

ow had returned to within normal limits. The patient did well for the first year of maintenance chemotherapy. A routine bone marrow one year after his initial diagnosis revealed a marrow relapse without peripheral blood findings. Reinduction with vincristine and prednisone was successful. Maintenance chemotherapy was changed to cyclophosphamide and was successful in maintaining a remission for seven months. A second bone marrow and peripheral blood relapse occurred. Since that time the patient has been maintained on VAMP therapy and is in remission two years after his original diagnosis. Chest x-ray continues to show a normal cardiac silhouette (Fig. 4).

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Behavior Therapy for Obesity: Another Fad or a New Set of Facts?

PART I

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THERE are few areas in medicine and nutrition in which there are as many treatment fads as that of obesity. A list of currently popular weight reduction treatments having little or no basis in established fact would easily fill a journal page. Prominent on such a list would be scores of fad diets some of which, if followed, would achieve nutritional effects opposite to those of others, pseudo-medicines such as the "grapefruit pill," exotic physiotherapeutic devices, appetite depressants and exercise regimens; all of which promise in one way or another that excess fat will "melt away." These treatment fads contrast sharply with the oft quoted fact that

> . . . most obese patients will not remain in treatment. Of those who do remain in treatment, most will not lose significant poundage; and of those who do lose weight, most will regain it promptly.[1]

What the area of weight control appears to need is many fewer fads and greatly different facts.

The application of behavior therapeutic procedures to the problem of weight regulation appears to be providing this vital treatment area with a new set of facts. Thus, Stunkard, quoted earlier, has observed recently that "both greater weight loss during treatment and superior maintenance of weight loss after treatment indicate that behavior modification is more effective than previous methods of treatment for obesity."[2] This paper will summarize research on the behavioral treatment of obesity giving detailed emphasis to the work done by Barbara K. Paulsen and Dr. Mary Bess Kohrs of Lincoln University, Jefferson City, Missouri and Dr. Ruth N. Lutz and myself of the University of Missouri, Columbia. Additional and, in some respects, more comprehensive reviews of research in this area can be found in 2, 3, 4 and 5.

What is Behavior Therapy?

It is reasonable that a discussion of research on behavior therapy begin with a precise statement of what behavior therapy is. Behavior therapy or, synonymously, behavior modification is two fundamental things. First, it is an orientation to human behavior in psychology, education, and, increasingly, medicine that emphasizes scientific empiricism in the understanding and treatment of human behavior disorders. Controlled research findings concerning the processes of the acquisition, performance and change of the behavior of organisms provide the basis for the understanding and alteration of human behavior considered abnormal, disturbed or, simply, undesirable by significant segments of society. Further, behavior therapists seek to apply the same standards of scientific rigor and proof in the clinic that they advocate for the research laboratory. That is, they strive to be applied scientists or scientist-practitioners[2] (See 6 for a full description of behavior therapy as an "experimental-therapeutic endeavor.")

Second and deriving from its first fundamental component, behavior therapy emphasizes the principles and procedures of learning in psychotherapeutic treatment endeavors. Behavior therapists view human behavior as learned in nature. Accordingly, behavior change in both the course of normal development and therapy most often reflects the influence of learning processes. Behavior therapy, then, is learning therapy; it is treatment based on the principles and procedures of learning or environmental manipulations known to have specific effects on the performance of learned behaviors. Behavior therapists, in this second light, are behavior change technologists or behavioral engineers.[7]

Survey of Research on Behavior Therapy for Obesity

Behavior therapy has found widespread application in psychology and education including the treatment of anxiety and focal fears, alcoholism, drug abuse, enuresis, sexual deviance, learning disabilities, child behavior problems at home and at school, schizophrenia, and psychosomatic disease (for a recent documentary review see 8). As regards the treatment of obesity, three broad behavioral approaches have been investigated. The first, aversion procedures, has made use of primary and covert aversive stimulation within a respondent conditioning paradigm. In these procedures, food thoughts (e.g., imagining the sight of a preferred food) or actual food stimuli (e.g., food odors) are paired with aversive odors or thoughts of nausea in an effort to reduce the palatability of food via a conditioned aversion response. Foreyt and Kennedy,[9] in one of the few even partially controlled studies of aversive procedures, compared the effects of the repeated pairing of favored foods and noxious odors with the results of the popular TOPS or Take-Off-Pounds-Sensibly program. The authors give no description of their version of the latter program and even though the aversion therapy resulted in significantly greater weight losses (a mean of 13.33 lbs. versus 1.0 lbs. after nine weeks of treatment) it is unclear just to what it is superior. Two recent and more conclusive studies by Janda and Rimm,[10] and Manno and Marston[11] compared covert sensitization[12] with untreated or contact only groups. The covert aversion procedure, entailing the pairing of mental images of food and eating with feelings of nausea and vomiting, produced comparatively small but stable weight losses in the magnitude of 10 lb, with 4-6 weeks of treatment.

A second behavior therapeutic approach to weight loss utilizes operant reinforcement-punishment procedures. Case studies by Ayllon,[13] Bernard,[14] and Moore and Crum[15] have all demonstrated the feasibility of promoting rather large weight losses through the use of favorable or unfavorable consequences contingent on changes in weight or eating habits. Harmatz and Lapuc[16] found significantly greater reductions among inpatients receiving money contingent on weight losses than patients receiving "social pressure" group therapy and diet only. Similarly, contractual reinforcement wherein subjects turn over sums of money or valuables which are then returned in small amounts contingent on weight loss has proven superior to no treatment,[17,18] monitorying without reinforcement,[18,19,20] information only,[19] and information plus encouragement.[17] Weight loss *rates* associated with this treatment have been a respectable 1-3 pounds off per week although total amounts of weight taken off often have been only 6-8 pounds.

The most widely studied and consistently effective behavioral control procedure for weight loss was first suggested by Ferster, Nurnberger and Levitt[20] in their classic analysis of the control of eating. This treatment is a collection of behavioral, self-control techniques which aims at teaching obese people how to achieve control of their eating by understanding and manipulating the antecedant and consequent conditions of that behavior. Supplemented in recent years but basically unchanged, the therapeutic potpourri includes training in stimulus control, self-reinforcement and punishment, controlled deprivation, response chaining, self-monitoring, response shaping, and the like as each applies to the control of excessive eating. An early multiple case report by Stuart [21] (see also 22) established that the Ferster et al procedure could yield rather large and stable weight losses. Subsequent controlled investigations by Hagen,[23], Harris,[24] Harris and Bruner,[25] Penick, Filion, Fox and Stunkard[26] and Wollersheim[27] consistently have demonstrated the superiority of the behavioral potpourri over a number of control and comparison procedures.

Current Research Issues

Outstanding among current issues regarding the refinement of behavioral weight control procedures is the question: How can we broaden and thereby improve the empirical base of presently available treatments to include weight control procedures taken more directly from research bearing specifically on the processes of eating in the Obese? The work of Stanley Schachter and his students and colleagues at Columbia University seems highly instrumental toward this end.

Seeking to further support and extend his observations on the role of cognitions in the experience of emotion, Schachter embarked on what was to be a long line of research on the eating processes of overweight and normal weight people.[28-30] Several years of careful reserach has turned up a number of remarkably consistent facts about the eating processes of fat people (for detailed reviews see 31, 32). First, it was found that preloading or feeding solid foods to overweight students before an ad libitum eating situation had less of an effect on the amount of their eating than that of normal weight students subjected to the same conditions. Related to this finding was the observation that injection of epinephrine which inhibits gastric motility and increases blood sugar (both conditions being associated with low hunger levels) reduced the amount of food eaten by normal weight more than overweight subjects.

Of more direct interest to the behavior modifier, Schachter and his co-investigators have found that overweight volunteers tend to "eat by the clock" (i.e., when they perceive that it is their eating time), gage their eating by food availability or the amount of food served, eat more of good and less of bad tasting food, eat less when aware of the amount of food eaten, and eat more and faster but less often (i.e., have fewer meals) than normals. Physiological processes associated with food deprivation and the sensation of hunger appear to be relatively unimportant. Instead, the eating behavior of overwieght relative to normal weight people tends to be environmentally determined. Their eating is, in Schachter's words, stimulus bound; it tends to be triggered by external rather than internal (psychological) events.

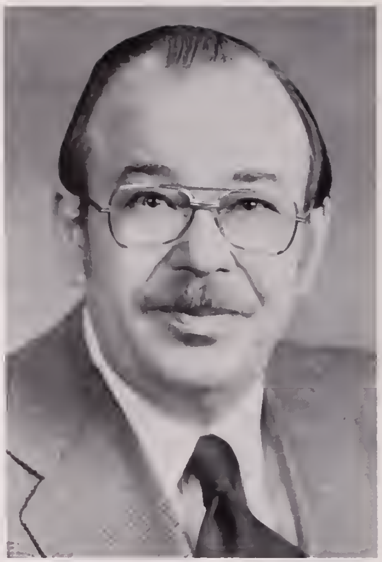
There is much in this research of interest to the behavior therapist seeking to promote weight control in obese clients. Knowledge of the rudimentary processes whereby stimuli in the environment come to "control" certain aspects of behavior makes it possible to consider stimulus control procedures as a potentially effective behavioral basis of weight loss treatment. Meaningful progress along this line has been made already by Mahoney[33] and Stuart.[34] Further, a large group of investigators employing diverse treatment procedures have attempted to program "situational changes" in the eating and living environments of their overweight subjects. As yet, however, no one has attempted to develop and test a treatment for obesity which is emphatically oriented to stimulus control manipulations. This could be achieved easily by focusing on the characteristics of the overweight person's eating environment broadly conceptualized to include the grocery store, kitchen, and restaurant. Behavioral-environmental manipulations directed toward the reduction of food and eating cues would include shopping from a list, storing food out of sight, cooking with lids, serving buffet-style from the kitchen counter, quickly disposing of leftover food, and a score of similar, highly specific recommendations.

The frequent and rapid return of newly lost excess poundage identifies maintenance as a second important issue in this area of research. As Schachter and Rodin[35] observe, "Almost any fat person can lose weight; few can keep it off." Weight maintenance following treatment induced weight losses appears to be no less a problem with behavioral treatments than it is with more traditional diet or exercise therapy.

Much of the problem in the maintenance of weight losses appears to center around the client's discontinuance of treatment induced changes in eating and/or exercise. Upon completion of a course of treatment or reaching a desired weight level, clients often return to their old ways of doing things. Thus, they go off their reduction diet, resume eating favored, high caloric foods, discontinue food records, cart the exercycle to the garage or allow their health club membership to expire. Subsequently, lost pounds reappear. Were there no diet, exercise, reinforcement or conditioning regime to go off of, this might not be the case.

Weight loss within relatively permanent, stable dietary conditions can be achieved in two important ways. First, clients can be led to reduce caloric intake levels by eating less of everything within their *own* food choices as opposed to relying on a special or restricted diet for this purpose. Food preferences which develop rather early in life and reflect complex socio-economic influences are most difficult to change. Few people *like* being on a diet but most can live comfortably while eating less of what they choose to eat. Second, treatment instigated changes in food storage, preparation, and service habits that involve alteration of the eating environment (e.g., rearranging cupboard and refrigerator items; the use of a new storage, cooking and service dishes) in the interest of reducing food consumption will tend to persist beyond any formal treatment period. Behavior changes which are functionally linked to relatively stable changes in the environment will also prove to be relatively stable. Once again, then, the use of environmental or stimulus control procedures for weight control offers great promise.

President's Page



Unity

1776

It could not be done. Thirteen weak and independent colonies could not unite in a common cause for independence.

1976

It cannot be done. The physicians of Nebraska will not unite in an effort to obtain legislative relief for medical liability. The egotism of the physician coupled with his competitive nature precludes his cooperation in such an endeavor.

By action of the House of Delegates of the Nebraska Medical Association on April 28, 1975, an Ad Hoc Committee — Medical Liability Legislation was appointed. The committee was charged with the development of legislative remedy that would assist in alleviation of the medical liability crisis developing in Nebraska. A legislative bill patterned after that in effect in Indiana was the result. This bill, designated the Schmit Bill, was introduced to the Legislature as LB-703 by Senator Loran Schmit of Bellwood, Nebraska, early in January 1976.

In the ensuing weeks, the unity of the physicians in Nebraska in fighting for this cause was indeed remarkable. Across the State, from Falls City to Scottsbluff, the physicians gave of their time and ability in support of this legislative remedy. Every senator in the State was contacted personally by one or more physicians urging their support of this bill. As a result of the effort of the physician in his home town, messages of support for the bill were carried to senators by their constituents including patients, local businessmen, civic leaders and other concerned citizens. It was fully evident to the members of the Legislature that a remedy in the field of medical liability was a necessity. The Schmit Bill was transformed to LB-434 and passed by a vote of 42 to 4 on March 31, 1976.

In guiding the bill through the Legislature, full credit must be given to Senator Loran Schmit of Bellwood for his outstanding performance. Without his dedication to this cause and without the tremendous amount of time and effort expended in behalf of this piece of legislation, the bill would not have survived. Although a number of other senators provided full support for this bill, Senator John DeCamp of Neligh deserves particular recognition for his able assistance in the passage of this measure.

Yes, Senator Loran Schmit deserves full credit for providing this legislative remedy on medical liability to the people of Nebraska. However, he would be the first one to admit that he would not have been able to accomplish this task without the support of the constituents of each senator. To gain this support, each physician in the State deserves credit. There was time and effort expended by the physicians in explaining the need for this legislative remedy and the advantages that it would accrue to the people of Nebraska. The physicians demonstrated unity of purpose.

It couldn't be done? Physicians cannot speak with one voice? The physicians have just demonstrated that it can be done. Let us resolve to maintain and utilize this unity of purpose on behalf of Medicine in all of its aspects, both at the local level as well as at the national level. With unity, our voice can and will be effective in charting the future of medical practice. Let us continue that which we have demonstrated and move forward.

Harlan L. Papenfuss, M.D.
President

The Auxiliary

MRS. Y. SCOTT MOORE
Lincoln, Nebraska
President, 1975-1976

MRS. GORDON D. FRANCIS
Grand Island, Nebraska
President, 1976-1977

1975-1976 REPORT — PRESIDENT AND PRESIDENT-ELECT ANNUAL REPORT

This has been a year of many happy and privileged events for Harriette Francis, your President-Elect, and myself.

Beginning the year as your Delegates to the National Convention in New Jersey, with Helen McGinnis and Rose Cornelius, Harriette and I were motivated, along with all of the other state presidents and president-elects, to dedicate ourselves to the most successful year that we could have.

October was a busy month. Again traveling together, Harriette and I, along with three County President-Elects, Jane Dunlap from Norfolk, Norma Carveth from Lincoln and Pam Hoesing from Omaha, attended the County Leadership Confluence in Chicago. With all the important information we gleaned there, we made our own plans for three workshops to be held in Nebraska. Later that month, with a team of chairpersons from all areas of program, we held day-long sessions in Norfolk, Scottsbluff, and Hastings. In Norfolk and Hastings, we also held evening meetings with the County Medical Societies presenting information on the Health Galleries. We felt these meetings were successful and think workshops are an effective way of meeting our members and exchanging helpful ideas.

Many hours have been spent this year on the Health Galleries project. This project has grown by leaps and bounds. Not enough words are available to express our thanks to this committee. Excitement ran high on January 9, at the unveiling of the scale model of the Galleries and the presentation made by Richard Rush.

The Executive Committee meetings in September and January were both held in my home to make plans for the Fall and Mid-Winter Board Meetings. At the January meeting, our guests were the men from the NMA Headquarters Office explaining the medical liability legislation plans.

Harriette and Mary Stryker attended the 1976 President-Elects meeting in Chicago, in February, and made reports at the Mid-Winter Board Meeting.

I have been a member of the NMA's Health Education in Schools and Colleges Committee this year and attended a seminar at the University of Nebraska on the Berkely Project. This is an important innovation to health education and has the possibilities for a solution to good health education in the schools in Nebraska.

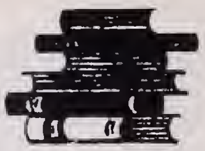
The Department of Health asked for the Auxiliary's help in promoting Immunization Month in October. I was asked to chair the committee to promote this project. The committee elected to be ongoing and will ask for Auxiliary help in the future.

Harriette and I will be attending the Annual Meeting of the Missouri Auxiliary in Kansas City, April 3 and 4. We will also try to attend fund-raising events for the Health Galleries in North Platte and Lexington. We will be at the Family Physicians Meeting in Kearney, April 7-8, as well as the NMA Annual Meeting in Kearney, May 3, 4 and 5. Then on to Dallas towards the end of June, to make our reports of Nebraska activities to the National Convention.

This has been a great year. We have tried many new ideas, and we appreciate the flexibility of our members. It has been a great pleasure to meet so many of you personally. I started my year by saying, "Doctors' wives are special. They are intelligent, educated and have a lot of influence in their communities. They have unbelievable woman power." We have done great things together, and I know you will continue to do great things for Harriette. It has been a great pleasure to work with you.

Thank you,
Patsy Moore, President
Harriette Francis, President-Elect

Books



Book reviewed.

Hypnosis in the relief of pain; by Ernest R. Hilgard and Josephine R. Hilgard; 262 pages; $12.50, hard cover; published October 15, 1975 by William Kaufmann, One First Street, Los Altos, California.

Ernest Hilgard is a Ph.D.; past president of the American Psychological Association, of the Society for the Psychological Study of Social Issues, and of the Division of Psychological Hypnosis. His wife, Josephine Rohrs Hilgard, is a Ph.D. and M.D., and is the author of Personality and hypnosis. He is Professor of Psychology, she is Clinical Professor of Psychiatry; they are both at Stanford.

The book is divided into three parts; Pain and hypnosis, Hypnosis and clinical pain, A perspective on the hypnotic control of pain. There are 10 chapters: Hypnosis, Pain, Controlling Pain, Hypnosis in pain control, Cancer, Obstetrics, Surgery, Dentistry, Hidden pain and its interpretation, The future of hypnosis in pain control. There are Appendix A and B, notes, references and author index, and a subject index.

Being new, the book is of course up-to-date. The authors' qualifications are impressive. There is a small section describing technique in Appendix A and in the chapter on surgery. There are references to acupuncture. The writing is wordy, but is very good. The type is a little small. The text is at once technical and nontechnical.

I thought it was a fine book.

—F.C.

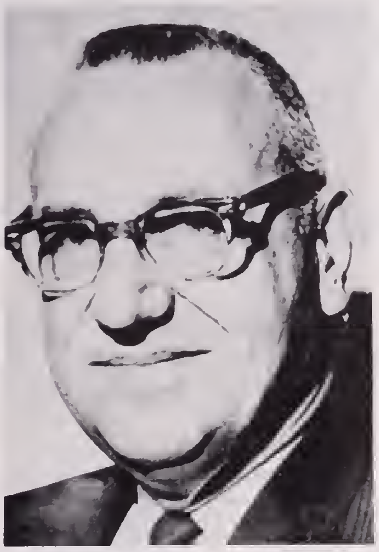
In Memoriam

FRANK H. TANNER, M.D.

Dr. Tanner was born in Lincoln, Nebraska on December 8, 1913. He passed away in Phoenix, Arizona on March 7, 1976; he was 62 years old. He received his B.S. degree from the University of Nebraska in 1936, and his M.D. from the University of Nebraska College of Medicine in 1938. He obtained his postgraduate training at the University Hospital in Omaha, and at the Mayo Foundation in Rochester, Minnesota. Dr. Tanner came to Lincoln in 1943; he was the first fulltime pathologist and director of laboratories for the Lincoln hospitals. He was married to Ruth Menze on August 28, 1936.

Dr. Tanner was a member of the faculty of the University of Nebraska College of Medicine and of the University of Nebraska Dental College. He was President of the Lancaster County Medical Society in 1953-1954. He was the 100th President of the Nebraska Medical Association, from 1968 to 1969. He was a member of the College of American Pathologists, of the American Society of Clinical Pathologists, of the Nebraska Academy of Science, of the Nebraska Cancer Research and Educational Society, and was an honorary member of the Nebraska State Dental Association. His fraternities were Alpha Tau Omega and Nu Sigma Nu. His honorary societies included both Alpha Omega Alpha and Sigma Xi.

He had been President of the Nebraska Board of Examiners in Medicine and Surgery. He was a member of the Board of Directors of Nebraska Blue Cross-Blue Shield, and was a member of the Lincoln Country Club and of the Westminster Presbyterian Church.



Dr. Tanner is survived by his wife Ruth; three daughters, Mrs. John E. Musselman, Omaha, Mrs. J. A. Rodriguez, Rochester, Minnesota, Nancy Lee, Tempe, Arizona; a sister, Mrs. Lloyd Burt, Lincoln; and two grandsons, John Tanner Musselman and Joseph Anthony Rodriguez.

It was my privilege to know Dr. Frank Tanner personally and well. He was a gentleman, a friend to turn to for advice, and a leader in his own field of pathology. He was held in high esteem by his fellow physicians. He was a pioneer. He did much to enrich his own specialty and medical practice here in Lincoln and throughout Nebraska. We will all miss him.

—F.C.

WashingtoNotes . . .

Laboratories.

The Senate Labor and Public Welfare Committee has approved legislation subjecting clinical laboratories in both intrastate and interstate commerce to federal licensure and standards requirements.

The revision of the Clinical Laboratories Improvement Act (CLIA) would cover labs operating only within one state for the first time, and give HEW a stronger role in supervising the nation's clinical laboratories.

Costs.

The American health care system is due for tight government control because costs are becoming more than the economy can bear.

This was the grim message of speaker after speaker at a Washington, D.C. conference on the economic impact of health care legislation. The meeting was sponsored by Arthur D. Little, Inc., a Cambridge, Mass., consulting and research outfit.

"The cost is becoming prohibitive," declared Charles Edwards, M.D., former Assistant HEW Secretary for Health. "The U.S. health care system is headed toward fundamental changes that are certain to occur and sooner than most expect." Dr. Edwards warned he predicted health care will cost $135 billion next year. $600 for every person in the country.

A study was released by the Arthur D. Little firm estimating that the passage of national catastrophic health insurance would add $4.5 billion to 1980 expenditures for principal health care products and services. If no new national health coverage becomes effective, spending for health care is expected to grow at an average annual rate of four percent over the next five years, or from $98.8 billion in 1975 to $112 billion in 1980, the study said.

Enactment of national comprehensive health insurance, which Little said is not regarded as very likely to happen before 1980, would increase health care spending by 12 percent or $13.6 billion, for an annual total of $125.6 billion in five years.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: In adults, urinary tract infections complicated by pain (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli, Klebsiella-Aerobacter, Staphylococcus aureus, Proteus mirabilis,* and, less frequently, *Proteus vulgaris*) in the absence of obstructive uropathy or foreign bodies. **Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides.** Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Children below age 12; sulfonamide hypersensitivity; pregnancy at term and during nursing period; because Azo Gantanol contains phenazopyridine hydrochloride it is contraindicated in glomerulonephritis, severe hepatitis, uremia, and pyelonephritis of pregnancy with G.I. disturbances.

Warnings: Safety during pregnancy not established. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, Stevens-Johnson syndrome, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *G.I. reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

Dosage: Azo Gantanol is intended for the acute, painful phase of urinary tract infections. *Usual adult dosage:* 2 Gm (4 tabs) initially, then 1 Gm (2 tabs) B.I.D. for up to 3 days. If pain persists, causes other than infection should be sought. After relief of pain has been obtained, continued treatment with Gantanol (sulfamethoxazole) may be considered.

NOTE: Patients should be told that the orange-red dye (phenazopyridine HCl) will color the urine.

Supplied: Tablets, red, film-coated, each containing 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl—bottles of 100 and 500.

ROCHE

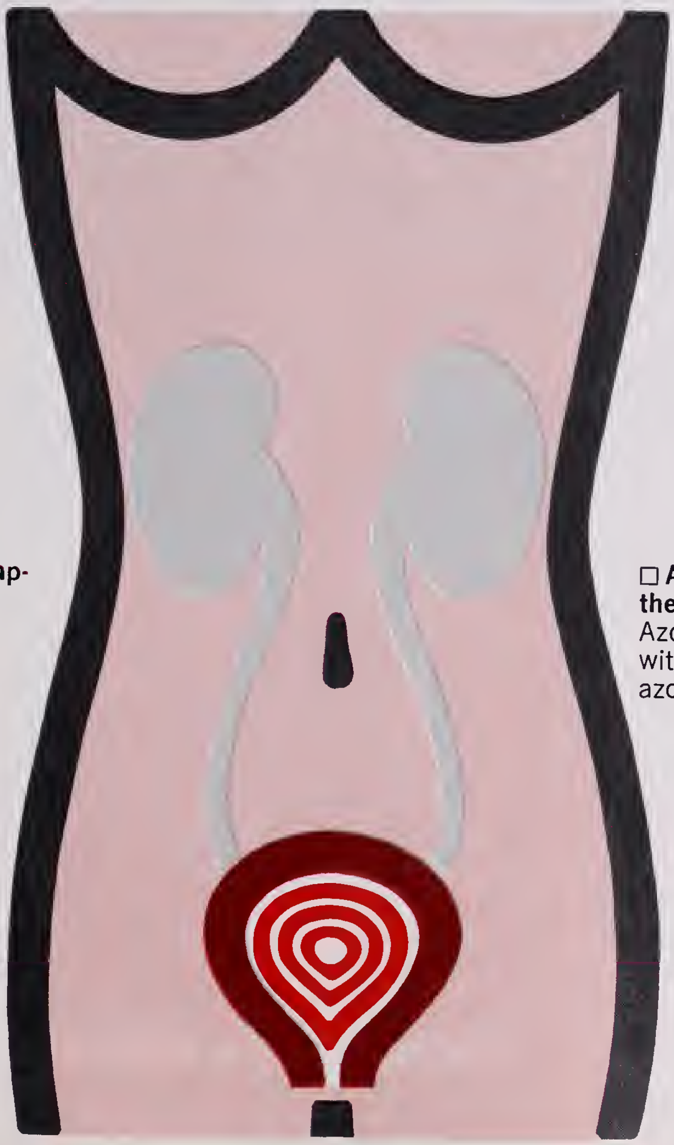
Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

When pain complicates acute cystitis*

Azo Gantanol®

Each tablet contains 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl.

for the pain for the pathogens



☐ **Early relief of painful symp-**
oms such as burning and
iscomfort associated with
rgency and frequency.

☐ **Effective control of sus-**
eptible pathogens such as
. coli, Klebsiella-Aerobac-
er, Staph. aureus, Proteus
irabilis and, less fre-
uently, *Proteus vulgaris*.

☐ **Appropriate antibacterial therapy:** up to three days with Azo Gantanol, then 11 days with Gantanol® (sulfamethoxazole).

nonobstructed; due to
susceptible organisms

ROCHE

DYAZIDE® MAKES SENSE

Trademark

Each capsule contains 50 mg. of Dyrenium® (triamterene, SK&F) and 25 mg. of hydrochlorothiazide.

TRIAMTERENE CONSERVES POTASSIUM WHILE HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE

FOR LONG-TERM CONTROL OF HYPERTENSION*

Serum K+ and BUN should be checked periodically. (See Warnings Section.)

Before prescribing, see complete prescribing information in SK&F literature or *PDR*. The following is a brief summary.

> *Warning
> This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

***Indications:** *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: **Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired.** Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, **check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently**—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

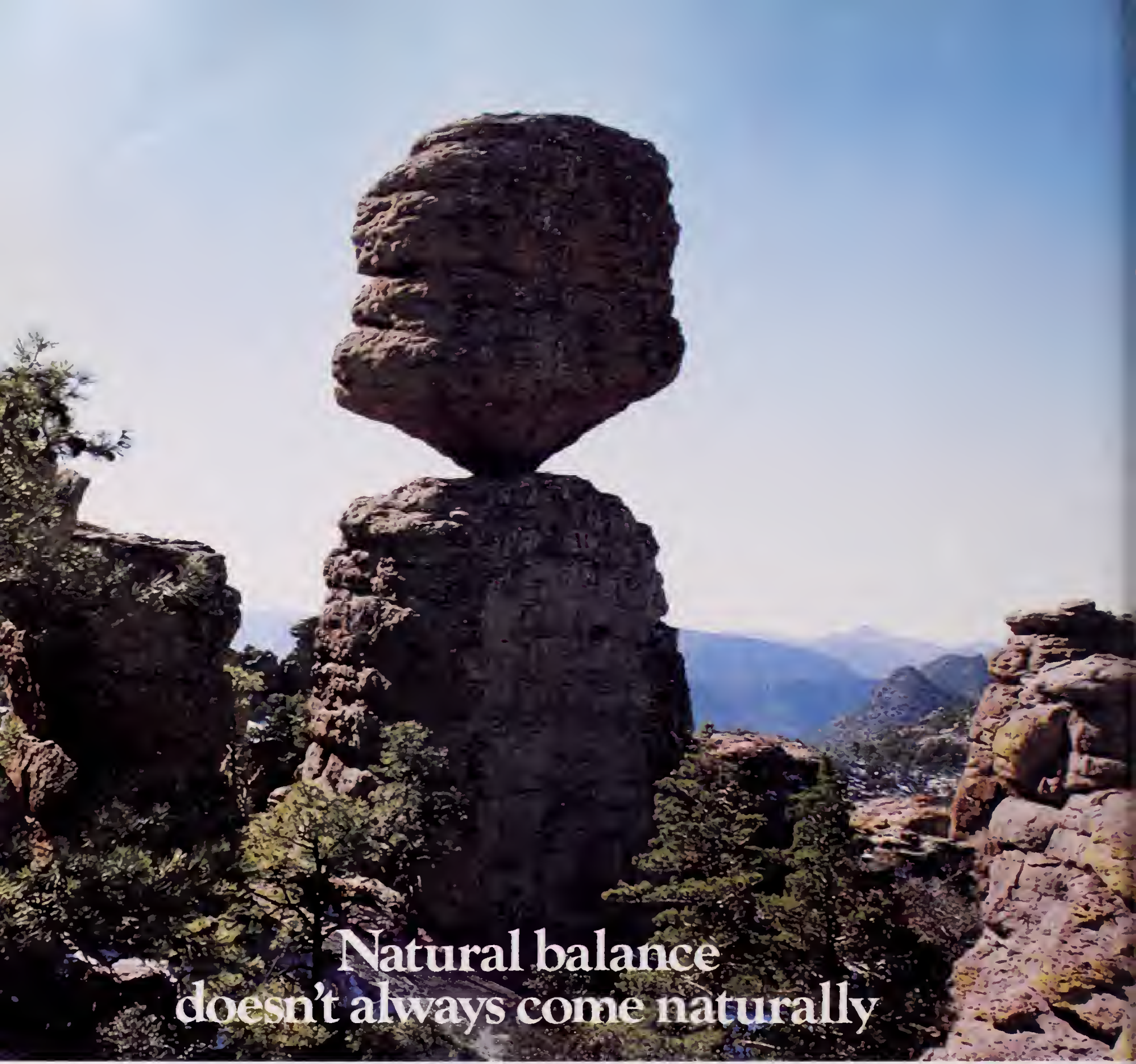
SK&F Co., Carolina, P.R. 00630
Subsidiary of SmithKline Corporation

Upjohn
The Upjohn Company, Kalamazoo, Michigan 49001

Medrol® 4 mg Dosepak*

methylprednisolone, Upjohn

The explicit printed dosage instructions that accompany each Dosepak make it easy for the patient to understand and follow the dosage regimen.



Big Balanced Rock, Chiricahua Mountains, Arizona (approx 1,000 tons)

☐ Found useful in the management of vertigo* associated with diseases affecting the vestibular system.

☐ Can relieve nausea and vomiting often associated with vertigo.*

☐ Usual adult dosage for Antivert/25 for vertigo:* one tablet t.i.d.

☐ Also available as Antivert (meclizine HCl) 12.5 mg. scored tablets, for dosage convenience and flexibility.

☐ Antivert/25 (meclizine HCl) 25 mg. *Chewable* Tablets for nausea, vomiting and dizziness associated with motion sickness.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences – National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

ROERIG Pfizer
A division of Pfizer Pharmaceuticals
New York, New York 10017

Antivert®/25
(meclizine HCl) 25 mg. Tablets
for vertigo*

Between Cases

Words We Can Do Without.

Believability, disutility, supernal, caveat, a good number of, amphigoric.

On Deaths.

Each year, about 10,000 college students in the U.S. attempt suicide.

Some 1,000 succeed.

Report On Majorities.

The majority of the barium has passed into the colon.

Section On Advice, Possibly Walking.

The patient was advised to do more ambulation.

Philosophy Of The Month.

There is always a however.

Old Patient To A Young Doctor.

I was sick before you were born.

Quote Unquote.

We all have the strength to endure the hardships of others.

Anon.

Section On Pain.

Those who do not feel pain seldom think that it is felt.

Samuel Johnson.

Department Of Statistics.

Traffic Deaths In The U.S.

1963	43,564
1974	46,200
1975	45,600

Except In Self-Defense.

I just read an article about striking nurses.

I never struck one.

Right.

Any decision is better than none.

F.C.

The History.

The shoulder has been dislocated seven times, and the closest place is Denver, Colorado.

Quote Unquote.

I am not sure what I believe in, but I am damned sure that Something believes in me or I wouldn't be here.

Merrifield.

What Did He Say?

At this time the findings and history are as described.

The Physical.

Both sides, bilateral.

How To Get Your Weight Down.

Move, that's how. You weigh ¼ pound less in Miami than in New York City, and 5 ounces less than you do in Bangor, Maine. It's because you weigh more at the poles, since the pull of gravity is stronger there, and that's because the poles are closer to the earth's center. And that is because the earth is not a perfect sphere.

F.C.

Down Memory Lane

1. The localization of brain tumor is not yet an exact science, new and improved methods that will further narrow the per cent of cases unlocalizable, by present methods, are to be persistently sought after.

2. The laboratory of the hospital should be equipped to carry out as many routine tests as the limitations of the hospital will permit.

3. The shortage of practitioners in rural communities in Nebraska is not acute.

4. Why not standardize fees? Some say it can't be done. Why can it not be done?

5. Our attitude toward scarlet fever is rapidly changing. We are no longer powerless to combat the infection. How really wonderful it is to be able to tell the anxious mother that we are able at last to do something to overcome this dread disease.

6. Russian doctors also gravitate to the cities.

7. A second unit is to be built to the Nebraska University hospital, Omaha, during the season of 1926 at a cost approximating $225,000.

8. To advance symmetrically a physician must have a good scientific foundation, a high ideal in ethics and good business ability to obtain the financial means earned by his labors.

9. Several very good hospitals in Omaha are not standardized.

10. Much has been said about the cost of a medical education and figures ranging from $10,000 to $15,000 have been quoted as the cost of a medical education.

11. I date back to the time when it took but about forty weeks to make a doctor and there are people who are willing to admit that they made some pretty good ones in those days!

Nebraska State Medical Journal
May, 1926.

Dean's Corner

I have been invited to share with readers of the Journal some thoughts and experiences from the standpoint of the Dean of the College of Medicine. This is certainly a privilege. Since communication is the purpose and "Brevity is the soul of wit" — I will endeavor not to abuse the privilege.

One of my first tasks as Dean, and a large continuing concern, is recruiting. The finding, interesting, convincing, and acquiring of excellent physicians for the college and the state is of great importance. The future of any institution or any medical care setting depends in a primary way on good people to do the thinking and the work, resulting in proper education, research, patient care and responsible administration.

The interrelationships among all physicians in the State of Nebraska and our large community now become quite apparent to me. Excellence in the faculty promotes the recruiting of good medical students, who we hope will be well taught and will become future practicing physicians of the state — they will be recruited to practice with already present physicians or by communities with a true need for new or additional medical help. The counselling of the young people of the state, as students and citizens, by physicians and the general respect for physicians engendered by their service and their competence is part of this total recruitment effort. This recruitment is absolutely necessary for the profession to continue with well qualified, highly motivated future physicians. The recruitment of new and capable physicians from the medical colleges for practice sites is necessary to obtain high quality, and fully adequate and excellent patient care.

As in many instances on the present day scene, "we are all in this together." We need, should and will try to be helpful to physicians and communities in this recruitment effort.

Perry G. Rigby, M.D.
Dean, University of Nebraska
College of Medicine

WashingtoNotes

Flu shots for all.

The AMA has supported President Ford's decision to undertake a mass immunization program against the swine influenza virus.

The President will ask Congress for $135 million to undertake the program in an attempt to stave off a possible epidemic of the virus this coming fall and winter.

AMA leadership is scheduled to appear before both the Senate and House in support of the Ford decision.

The AMA statement in full:

> "The American Medical Association supports the decision of President Ford to undertake a massive national immunization campaign against the swine influenza virus. Under the circumstances, we believe his decision is absolutely the correct one.
>
> "The AMA stands ready to assist in the national campaign in any way possible, including organizing the medical profession to insure that every person who wants to be vaccinated will be — regardless of ability to pay.
>
> "We speak for the medical profession in committing the doctors of this nation to make whatever efforts are necessary to vaccinate the entire population. It will not be easy, but it can and must be done."

Medicaid.

A federal-stage campaign to reduce Medicaid fraud and abuse has been launched by Health, Education, Welfare Secretary David Mathews.

A team of federal and state Medicaid examiners will begin its work in Massachusetts soon at the invitation of Gov. Michael Dukakis. Another team will begin operations in June in Ohio at the request of Governor James Rhodes.

HEW said it plans to focus the joint effort on states with the largest Medicaid programs, with reviews in at least five states this year.

HEW has developed a computerized Medicaid management information system (MMIS) to aid in the processing of claims. MMIS will alert a state if, for example, a patient was in a hospital the same day a physician claimed to have treated him at home, or if a pregnancy test was ordered on a male, HEW said.

HEW said it will coordinate its Medicaid investigative efforts with the Department of Justice and the Internal Revenue Service.

Medicare & Medicaid.

Major changes in the Medicare-Medicaid programs are called for in proposed legislation introduced by Sen. Herman Talmadge (D-Ga.). The proposal would establish incentives for physicians to accept assignment; restrict payment methods for hospital-based specialists; mold Medicare, Medicaid, and the Bureau of Quality Assurance into a single agency; and set up reimbursement incentive programs for hospitals.

Talmadge describes the specialist provision as follows:

"Under the legislation specialists — such as certain radiologists, pathologists, and anesthesiologists — would be eligible under Medicare-Medicaid for fee-for-service, or other reasonable fixed compensation agreed upon with a hospital, for services which they personally render or which are provided under their direct personal supervision. For their administrative and general supervision of an x-ray, laboratory, or anesthesia department, the hospital could compensate them on a basis comparable to what a salaried radiologist, pathologist or anesthesiologist receives for comparable time and work. No percentage, lease, or direct billing arrangements would ordinarily be recognized for Medicare or Medicaid reimbursement purposes . . .

Physicians who choose assignments, to be called Participating Physicians, would be able to submit simplified and fewer claims and receive a $1 per patient bonus for most office visit charges. Medicaid would have to pay not less than 80 percent of the Medicare reasonable charge for nonsurgical care. As a means of encouraging physicians to move into physician shortage areas, new physicians could establish customary charges at the 75th percentile of prevailing charges in the locality, rather than the present 50 percent.

Medical devices.

Now passed by both Houses and awaiting conference, medical device legislation has made members of that industry predict a bullish future.

The legislation will add $250,000 to $700,000 in costs to products requiring pre-market approval. The hottest medical device will continue to be the pacemaker. Sales are expected to increase at an average annual compound rate of 9 percent. The use of renal dialysis is expected to triple by 1980. Catastrophic or comprehensive national health insurance will also help the industry. Makers of orthopedic and surgical appliances, clinical diagnostics, medicinals, and pharmaceuticals all expect steady growth. Drug companies predict biggest growth in anti-anthritics sales.

The legislation provides three categories for devices — class I, general controls; class II, performance standards; and class III, premarket approval, the general controls give FDA authority to move against devices that are misbranded or badly-made and require their registration as if they were drugs. FDA can exempt some devices from this control, such as custom devices not intended for general sale.

Class II devices would be required to meet certain manufacturing standards.

The class III classification involves premarket clearance for new products and essentially the same type of clearance for existing products. The House Commerce Committee report said it expected that intrauterine devices would fall in the class III category.

Medicare-Medicaid: drugs.

The government's controversial plan to limit reimbursement for some Medicare-Medicaid drugs to the lowest cost available was slated to take effect April 26, despite opposition from pharmaceutical and medical groups and questions raised by lawmakers.

HEW Secretary David Mathews said the disputed proposal inaugurated by his predecessor, Caspar Weinberger, will be implemented on schedule.

The Pharmaceutical Manufacturers Association and the AMA have filed suit against the proposed Maximum Allowable Cost (MAC) regulations. The AMA contends the plan violates patients' rights to seek the best medical care according to their physicians' best judgment in prescribing.

New from Lilly/Dista Research

NALFON®

fenoprofen calcium

300-mg.* Pulvules®

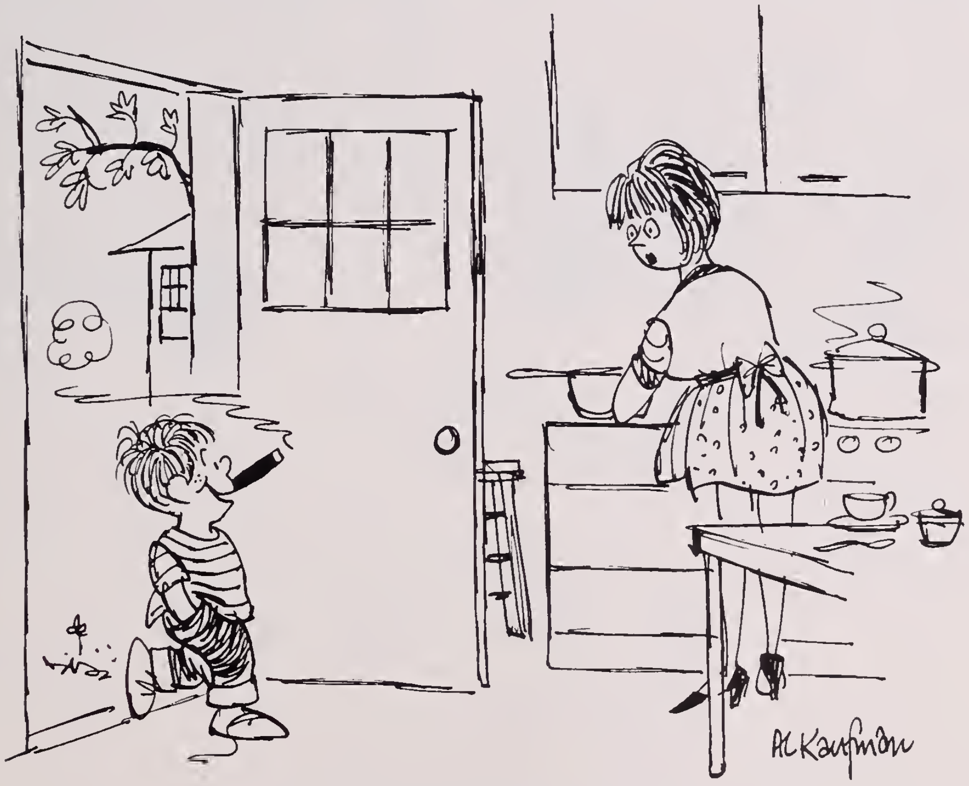
DISTA

Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46206

Additional information available to the profession on request.

*Present as 345.9 mg. of the calcium salt of fenoprofen dihydrate equivalent to 300 mg. fenoprofen.

600091



"Jeffrey Daniels just got a new brother!"

I Remember

THREE TRANSFUSIONS

All you do now is tell somebody to give the patient a pint of blood, and if you are in the operating room at the time, you check it with the nurse. But not too many years ago, you took the patient and donor to surgery and administered the blood directly from the donor to the recipient, which reminds me of three stories.

We used a 2-ml cartridge with automatic valves, so that after typing and cross-matching, and after the venepunctures, you had only to push a plunger back and forth 250 times to give the patient a pint of blood, since you were giving him 2 ml (we called it 2 cc then) with each stroke.

Well, one day, we found that the patient was unimproved after the heroic treatment, and after examining the transfusing device, we came to the almost unescapable conclusion that we had pushed the same two ml back and forth 250 times, because the valves had not functioned.

But we were to do even better a few months later. Because when we had completed our 250 back-and-forths (we counted religiously), we found that the patient was even less improved than the one where the valves had not functioned. This patient became paler, and the donor ruddier, because we had apparently hooked the device up wrong, and we just may have transfused the donor.

A fellow-intern came back to the hospital from a weekend trip, and he was full of venom because a police officer had dared to give him a ticket. I think he had claimed immunity, even in a strange town, because he was a doctor, but it didn't work. I was taking a donor to the operating room, when my friend recognized him, and asked if I would please let him take over. And he got into an operating room gown, and bent over the policeman-donor with syringe and needle and a savage smile, and said, "Remember me? I'm the doctor you gave the ticket to."

—F.C.

The Letter Box

Dear Dr. Cole:

Am still enjoying your contributions to the Journal! And cutting some out! Your Bumper Sticker: "Feeling sick? Call your lawyer," reminds me of one which you probably have heard. If not, here it is: "If you want to support the legal profession, send your son to medical school."

Best regards and keep up the good work.

Rex Murphy, M.D.
530 Republic Building
Denver, Colorado 80202

Coming Meetings

AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 26 - July 1, 1976, Dallas, Texas.

NEBRASKA MEDICAL ASSOCIATION FALL SESSION — September 30 — October 1 & 2, 1976, Lincoln Hilton Hotel, Lincoln, Nebraska.

AMERICAN MEDICAL ASSOCIATION — 30th Clinical Convention, December 4-8, 1976, Philadelphia, Pennsylvania.

"Stop worrying, Mrs. Zeisel; you're not being spayed. You're getting a hysterectomy."

ADVERTISERS' INDEX

A

Accent Service Company, Inc. 7

B

Burroughs Wellcome Co. 11

D

Donley Medical Supply Co. 15

F

Flint Laboratories 12, 13, 14

L

Eli Lilly and Company 18, 181

N

Norfolk Printing Co., Inc. 8

P

Pharmaceutical Manufacturers Association 16, 17

R

A. H. Robins Company 5, 6
Roche Laboratories 2, 3, 176, 176A
Roerig & Co. 176D

S

Smith Kline & French Laboratories 176B

U

The Upjohn Company 176C

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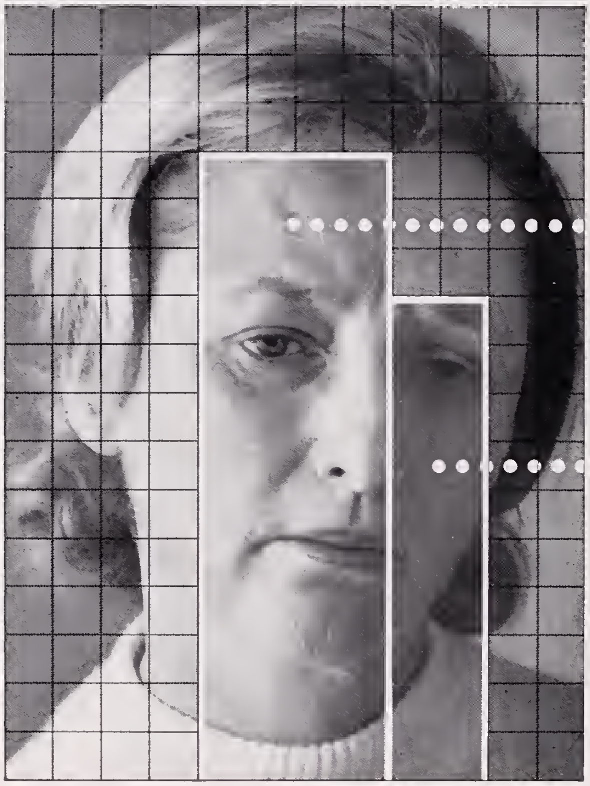
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Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful

respond to one

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anxiety states
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depressive symptoms

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Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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The Nebraska Medical Journal

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JUNE 1976 VOL. 61, NO. 6

EDITORIALS —

Has Evolution Stopped? 183
The Annual Session 183
On Psychology 184
On Malpractice 184
How To Look Like A Doctor 184

ORIGINAL ARTICLES —

The Ethics Of Research 185
Warren H. Pearse, M.D., FACOG

A Fifty Year Interview 189
C. P. Waite, M.D., F.A.P.A.

The Orthopedic Bed 190
Harold R. Horn, M.D.

Agents Affecting Adrenergic Function In Antihypertensive Therapy — I 192
H. Frederick Dalske, Ph.D.
Gerald L. Wolf, M.D., Ph.D.

Behavior Therapy for Obesity: Another Fad or a New Set of Facts?, Part II 196
William T. McReynolds

Acute Leukemia Presenting with Pericardial Involvement, Part II 198
James O. Armitage
John R. Feagler

The Effective Use of Nandrolone Decanoate In the Management of the Anemia Of Uremia: A Prospective Study 202
James O. Armitage, M.D.
Mary Leighton, R.N.
Frederick Ware, M.D.

FEATURES —

President's Page 207
The Auxiliary 209
Books 210

IN MEMORIAM 211
Dr. Meyer Beber

BETWEEN CASES 211

NEBRASKA —

Our Medical Schools 208
State Organizations 10A
Welcome New Members 214

DOWN MEMORY LANE 214

ALL THE STATES —

National Organizations 8A

AROUND THE WORLD —

The Letter Box 15-A
Coming Meetings 15-A

Address all correspondence relating to subscriptions, advertising or address changes to Mr. Ken Neff, Business Manager, 1902 First National Bank Building, Lincoln, Nebraska 68508 Phone: (402) 432-7585.

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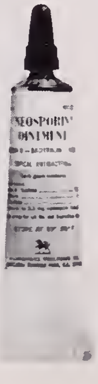

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Testing in Humans: Who, Where & When.

the weight of ethical opinion:

Few would disagree that the effectiveness and safety of any therapeutic agent or device must be determined through clinical research.

But now the *practice* of clinical research is under appraisal by Congress, the press and the general public. Who shall administer it? On whom are the products to be tested? Under what circumstances? And how shall results be evaluated and utilized?

The Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions which it submitted on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, as its official policy recommendations. Here are the essentials of PMA's current thinking in this vital area.

1. PMA supports the mandate and mission of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research and offers to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its service to the Commission.

2. PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact upon it of existing laws, regulations and procedures.

3. When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on drug and device innovation.

4. PMA proposes that an appropriately qualified medical organization be encouraged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent clinical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct nontherapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.

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THE NEBRASKA MEDICAL JOURNAL

HAS EVOLUTION STOPPED?

We live in two worlds, the biological and the physical, and I wonder, are both running down, and at the same time? The physical universe has a clock, and we deal with receding galaxies and half-lives of particles. In this connection, if red shifts indicate expanding distances between all masses, is it not as reasonable to conclude, since we should be unaware of increases in interstellar and intergalactic measurements unless we had something to measure them by, that the yardsticks are themselves becoming smaller, and that we may one day shrink into nothingness, or go back into the primal atom that once bore us?

Maybe the universe is winding down. Are we getting smaller or is the world bigger? You can't tell.

Meanwhile, there is evolution. Is this as far as we can go, and is this what was meant to be? We raise chickens to eat them, and cows for their milk. And there is no more need for them to evolve, unless we help them. Chickens and cows do not need to forage to survive; they have become adapted to our own use and to our purposes. We have used the plant kingdom to transform the sun's energy and the earth's chemicals into edible grain, fruits, and vegetables; into wood for building and burning; and into gas and coal and oil. And we use our captive animals to change plant food into animal food and drink.

My chicken dinner confronts me with its nerves and double helix and wing remnants and all the wonders of life, and I think of these things done by the millions to no purpose but to feed us, and evolution has surely stopped for the fowl I dine on; has it stopped for me as well?

Evolution takes time, and we have learned how to measure it, even in the past and in large amounts. But has the curve running from Cro-Magnon man to us stopped climbing; are we the last product of evolution, have we reached maturation, am I the final form of Homo sapiens?

Let us see. There have been no messages from other galaxies or planets if there are more planets; and as far as we know, we may well be alone. We have seen no significant change in ourselves, and modern man may be the final man. If we are not perfect, we are not aware of imperfections: are we to get rid of the appendix, or may it finally have a function, or is waiting to give up the appendix a waste of time? And are we not as intelligent as we will ever be?

Radioactive families run down into their lead-like final descendants, only we may choose to think of their running down as kind of evolution, or one of going up.

And our two worlds may one day settle down into the lead-like families and into modern man, and we may then stop all these changes that may have been planned for us. And this changing of the changes, the slowing down and the end of evolution may be taking place now.

For there is a U^{235} and a C^{14} and what I am saying is that there is very likely a Man^{f} or final man, or a Man^{now}. Is the submolecular clock unwinding, is its curve flattening, is the graph of man's ascent from whatever we came from straightening out, and are both finishing now? Is what we have now what was meant to be?

Are we to become smarter or taller or longer-lived or disease-free? It may well be that we are as good as we are going to be. And as our star fusion-furnaces look down and our atomic particles look up, and as we look at ourselves between the stars and the atoms, we may have reached the best of our worlds, and we may have stopped changing.

—F.C.

THE ANNUAL SESSION

The meeting has come and gone. It was well attended, and everybody worked hard. The motel manager asked if I still had my big black poodle, and I had to tell him no. The food was good, the weather was excellent, and I visited with friends.

The only story I remember was about the lady at a cocktail party. She said to a doctor, "Remember me? You ought to; you delivered me twenty years ago."

It was cold in the morning, and my windshield was frosted. I sat and talked with Dr. Gogela and Dr. Gilligan, and I predicted the identity of our next president. Irene Kelley was there with her do-gooding as always.

The delegates' sessions were exciting, and the reference committees were busy.

As I said, it was a lot of work, but there was camaraderie and fun and even relaxing. Wait till next year.

—F.C.

ON PSYCHOLOGY

I do not know why drivers turn right before they turn left, and that is the end of that, almost. Because I have found myself doing the same thing, infrequently, and only when the turn is difficult. But so many of them do it routinely, when there seems to be no need for it. They turn left before making a right turn, too.

I do not like to come back to the parking lot and find my car scratched, so when there is a choice, I will park away from a group of automobiles, even on the other side of a lot. And I always find that the next driver has pulled in right next to me, leaving a long line of empty spaces.

Something like this goes on in restaurants. When you choose a booth or a table far away from other diners, when you may even be the only one in the room, the next customer will almost invariably come in with his friends and sit down at the next table. If he does not pick the table, the waitress will always select the one adjoining yours.

—F.C.

ON MALPRACTICE

Doctors work at night, and it is unreasonable to suppose and particularly to require that a physician awakened in the middle of the night is alert. If just isn't possible. So I suggest that the courts take this into consideration when something that took place at night is debated at a time convenient for lawyers, like eleven o'clock in the morning. You can't work hard all day and get up at night and treat life-and-death situations with the same mental clarity you have at eleven AM. Let the attorneys try it.

One more thing; when you have been up at night, when you have missed a night's sleep, the courts ought not to require you to be superintelligent the next morning. And just one more little suggestion. When a doctor is up nights and works days and weekends too, I think the judges might remember that, and remember, too, that it is not right to maintain that the M.D. be at his peak mentally at all times.

And that brings up one more thing, even two. The first is simply this. Our decisions are largely life-and-death matters, and they are mentally exhausting, far more so than deciding whether to turn left or right, or if you should buy or sell. And the second is this. If a lawyer chooses yes instead of no, it is a matter of only hundreds of dollars. But if a doctor does it, the money value is a thousand times as great. I think the patient should realize this.

The malpractice situation gets bad, then good, then worse, and now I think it is getting better, and I hope it is going to be fair, that is, much better.

—F.C.

HOW TO LOOK LIKE A DOCTOR

1. The little black bag.
2. The thermometer.
3. The stethoscope.
4. The beeper.
5. The pocket flashlight.
6. The caduceus.
7. The sphygmomanometer.
8. The eyeglasses in the hand.
9. No cigarette.
10. The microscope.
11. The white coat.
12. Rubber gloves, face mask, operating gown.
13. Unmatching coat and slacks.

—F.C.

The Ethics Of Research*

WARREN H. PEARSE, M.D., FACOG
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I appreciate the students' invitation to speak at this Second Annual University of Nebraska Medical Center Student Research Day. I entered the field of academic medicine at this University in 1959, and the University of Nebraska and Omaha became what will always be home to my entire family. I am pleased to return home today.

In 1959 this medical school hardly went by the name of a medical center. It consisted of the north and south laboratory buildings, Conkling Hall, and the old University Hospital with six floors of eighteen-bed open wards. There were five full time clinical faculty members in all departments of the medical school and I became the sixth. It is obvious to all that much has changed since that time with certainly the majority of the credit going to Dr. Cecil Wittson who, with some bits of help, brought Nebraska medical education and medical research into the 20th century.

At the same time that much has changed in the Medical Center, much has also changed in Nebraska. In 1959 the Big Red football team compiled a record of three wins and six defeats. It was led by a quarterback named Pat Fisher who has remained with the game of football as is frequently evident on Monday night television. On the other hand some things haven't changed at all. At least to judge by reading the *World Herald*, Douglas County politics remain unchanged from whatever standards you might believe they had fifteen years ago, and I noticed recently that the Road Commission was still planning to widen the 84th Street tunnel under the Union Pacific Railroad tracks. I well remember that this project was about to begin any day in 1959.

Let me turn to the topic of the day. Some years ago two physicians, who were brothers, went to a small midwestern town to begin the practice of medicine. It is indeed possible to practice quality medicine in small communities, and the Mayo brothers achieved some modest success among the three thousand people of Rochester, Minnesota. In later years Dr. William Mayo made a statement that is seems to me exemplifies our concerns today. He said, "The church and the law deal with the yesterdays of life, medicine deals with its tomorrows."

We are today talking about the tomorrows of life — about research and the application of research plus a moral philosophy in medicine. Perhaps a good bit of the conflict that seems to arise between medicine and the law, and sometimes between medicine and the church or medicine and ethics, is that we in medicine are dealing with the tomorrows while the church and the law deal with the yesterdays of life.

Let me address the problem of the ethics of research by asking three general questions and then stating two answers. The answers will be my thesis. The questions: First, is it ethical for a university to do research? Second, is it ethical for an individual to do research? Third, is research ethical for those on whom the human element of research must necessarily be performed? My answers will be that most ramifications of these questions can be answered first by the assignment of a risk-benefit evaluation and that secondly, and ultimately, no matter what else we believe we must believe in people and their contribution to the dignity of all other people, for this is the ultimate ethic.

The first question: Is it ethical for a university to do research, or more properly should a university encourage and support its faculty in the performance of research? What are the university's aims in so doing? Is it the so-called "neon sign effect" whereby a bright research star provides publicity in the local and even national newspapers, and an attractive laboratory for the Trustees or

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*Presented at the Second Annual University of Nebraska Medical Center Student Research Day, November 11, 1975.

Board of Regents to tour periodically? Is it the attraction of soft money to increase the university budget, the grant overhead, and the number of people counted as full time faculty? Clearly I am suggesting that the aims of the university in encouraging research and indeed the research itself may break down if the goals and objectives of the school are not clear.

It would seem that research activities need to be focused on the overall goals of the school, including its primary programs in education and those in patient service. No one can be everywhere excellent.

If a university or a medical school intends to support research it must also be willing to accept two additional premises. There must be communication mechanisms across rigid departmental boundaries for research to be successful. There must also be commitments to the establishment of a critical mass of investigators for the accomplishment of any beyond the most elementary efforts. The day of the isolated scientist in his isolated lab thinking lofty thoughts and winning the Nobel Prize has almost vanished. With the establishment of a critical mass, however, the university must remember that the momentum of a group of investigators may keep it going beyond its natural life, and the harder it may be to wind down a program which has outlived its productivity.

A research commitment, then, is not one to be accepted by the university in the absence of goals or objectives. Nor is it to be accepted without realization of the commitments within the university that it entails and the realization of the tensions that will arise as research conflicts with the other, and perhaps more important, functions of an educational institution. The major question that should be asked about any research program is "how much does this work influence the thinking of others?" This is the criterion by which the value of research can be judged.

Second, is research ethical for the individual investigator? There is no question that he must maintain high standards of personal performance and intellectual integrity. Violation of this ethic is publicly observed from time to time in obvious instances such as painting mice, submitting identical papers under different titles to different journals, or indeed, under the pressure of time, publishing results which the investigator expects his experiments will produce but are really not yet available. These are the public violations. Private violations of these ethical standards of personal performance and intellectual integrity are more common but in either instance they are never forgivable. Violation of this ethic is, for better or worse, even more serious than missing teaching assignments or perhaps even dropping a punt on your own five yard line. A second ethical question that needs to be asked *of* and *by* the individual is whether the intent of the research is indeed to relate to the greater good of society or is the intent — perhaps even fleetingly — the hope that the investigator will become rich and/or famous.

Another ethical question for the individual investigator — is there perspective in selection of the problem? Measurements of rainfall in relation to human reproduction were popular in Great Britain in the 19th century and some studies of similar magnitude are still appearing today. Is it ethical to spend time on research which is capable of accomplishment but which makes no contribution?

Next, the individual ethic requires that the investigator maintain communication. Standards of published communication are relatively well set by journals and referees, but is the investigator willing to maintain communication with his fellow faculty members in the same institution, and with his students and junior investigators who need both information and a model to emulate? Communication with the broader community which in one fashion or another supports the research effort and the investigator is also necessary. It is precisely these forms of communication that are likely to make research in a university more rewarding than research in some form of institute, but they are an ethical responsibility of the individual.

Finally, the work of Pelz and Andrews at the University of Michigan demonstrated that there was a bimodal curve of productivity related to age of Ph.D. level research individuals in both developmental and research oriented organizations, the latter including both governmental agencies and universities. Theirs was a cross-sectional study, so we recently followed this with a longitudinal study of faculty in one medical school and demonstrated a less pronounced but similar bimodal productivity curve as measured by publications per person per year for full time clinical faculty (who were about 80% M.D.s, and 20% Ph.D.s and others). The pattern for medical school faculty seems to be similar to that of Ph.D.s in research settings. There are a number of speculations why such productivity curves might exist. For example, the initial publication peak could be the result of the original Ph.D. thesis or investigation and variations on the theme carried out over ten years, then a career plateau or drift, followed by selection of a new or redirected research focus and another peak of activity. Another possibility is that the younger age peak represents new bench or clinical research while publications in later years are of the review or philosophic type expected from senior faculty. I will not add to the speculation for medical school faculty, but the data are interesting. What they do remind us is that even the tenured individual has an ethical responsibility to continue some type of productivity, rather than sinking into what has been gently called "protracted quiescence."

To ask the third question, what about the ethics of research for those on whom the human element of research must necessarily be performed? This question has been the focus of most of the recent attention concerning the ethics of research and indeed there has been emphasis that everything should be tried on animals first. This is in many instances not realistic, but we should realize in the midst of all of these ethical discussions that much research may *not* involve humans and that the ethical questions of research go far beyond those of human experimentation. Zuspan has posed a series of laws relating to research, largely tongue in cheek. As for example, "the larger the grant, the less frequently the principal investigator is seen on campus." He has also noted in his third law that "the smaller the research subject, the larger the lab space required." The individual who works with individual cells or viruses requires at least five thousand square feet, the individual who does animal research needs perhaps four hundred square feet and an animal room, the individual who does human research needs only a desk, a chair, and a pocket calculator.

Indeed, most of the discussion lately has revolved around research on the fetus in-utero, on the child, on the institutionalized retarded adult, the prisoner, and so on. It seems to me that the question of informed consent by the individual or responsible guardian is the major question that needs to be answered. But after all, human research is a social responsibility of all of us. Most medical experiments one hundred years ago began with the investigator using himself as the subject, and all of us have a responsibility in this area both to pursue human research when it is necessary and to consider the rights of other humans and the potential benefits as we do so. Among his consideration of those for whom the bell tolls, John Donne said, "I am a part of mankind."

Are there answers? My first answer is that the risk-benefit ratio must always be kept in mind. This is perhaps most easily exemplified in pharmacologic development where the requirements of the FDA are for a drug that is safe and effective. It seems in these days that if a drug is not completely safe and completely effective, it is then denied to the market. However, a drug that is 100% safe at all dose levels has not yet been developed and probably never will be. Neither may all drugs be completely effective, but, for example, the woman with a bacterial vaginitis — not life-threatening, but extremely irritating, might well be pleased and benefited by local medication that is effective 75% of the time. Perhaps the most classic example has been the demonstration that in women under 40 the observed annual death rate from thrombo-embolic disease is 0.5 per 100,000 population, while this risk is increased seven times to a level of 3.5 per 100,000 with the use of oral contraceptives. This in indeed a substantially increased risk and yet while the death figure is 3.5 per 100,000 with oral contraceptives, if this same group of women were to become pregnant the death rate rises to 22.5 per

100,000. As a matter of fact, if they travel in automobiles during the year. their risk of death is 27.5 per 100,000. Here the ratio of risk to benefit is actuely defined.

I am not suggesting the so-called "situation ethics" of Joseph Fletcher which says that the right moral decision is that which gives the greatest beneficence to the greatest number, regardless of the act. But if the harm to one person or a group is itself limited and can be accepted, then we may consider the wider benefit to the much larger group.

As my second answer, what about the human contribution? One interesting positive example comes to us from the research in decision-making. In order to improve medical decision-making, computers have been programmed with results of physical findings and laboratory determination in Bayesian logic. Data from a patient is then punched into the computer and a series of diagnostic possiblities emerge. However, closer studies of the science of pattern recognition have disclosed that the face-to-face contact between the physician and the patient in which the patient states the problem and the chief complaint is formulated, provides 70% of all the diagnostic evidence that will ultimately be available. The computer using physical findings and laboratory data may help with an additional 20% ; there is usually 10% of diagnostic information that never becomes available. In other words, despite research, medicine will continue to be a people-to-people science and indeed the crucial element of medical practice is the information content of what has been termed "the first five minutes."

To select a more negative example, any applications for federal funds for in-vitro fertilization must be approved by the National Commission for Biomedical Research. Only three such research grants appeared among 12,000 applications for federal support in 1974, and none of these three were approved. Genetic research and resulting genetic manipulation is beginning to give us the power to change human characteristics prior to birth or to abort that life before birth, if "someone" decides that the human is less than perfect. Genetic hypotheses have been put forward to explain human attributes ranging from susceptibility to various diseases to a predisposition to mental illness. But are not these ideas contrary to our democratic ideals and on a basis of human ethics perhaps, say some, genetic and molecular research should be forbidden.

To summarize, let me quote from the "Report on the Consequences of Research" published in the *University of Chicago Record* in February 1975. "Research is an expression of man's obsession to understand himself and his place in the universe. The new ideas generated will always have consequences — some good and some bad, and the more profound the idea the greater will be the tensions in applying the research."

In a broad fashion then, I have attempted to set forth some of the prevailing tensions and two answers which may help your own thinking. If there were absolute answers you would have heard them from others long ago. Perhaps you have heard some, for as St. Paul did write long ago to the Thessalonians (1: 5:21), "Put everything to the test; hold fast to that which is good, but avoid the bad of whatever kind."

A Fifty Year Interview

C. P. WAITE, M.D., F.A.P.A.

THEY say Variety is the Spice of Life; then my life in the practice of medicine sure has been flavored with a little more "tabasco" than usual.

Early on, it was with the malarial treatment of "General Paresis" (for new-comers Lues of the Central Nervous System). If anyone wants a spicy life, I suggest the care of a ward of "general paretics" who in addition to the usual disturbed behavior are throwing bouts of chills and fever; indeed, life was not dull at the Government Hospital for the Insane in Washington, D.C., in the 1920's.

Later on, it was a brush with silicosis, toxic gases and solvents spiced with a drop in a bucket down a mine shaft in the lead and zinc fields of Oklahoma; followed by a stint of 16 years as industrial doctor for the Government Printing Office, flavored with the smell of ink and the fumes of lead and politics. For a breath of fresh air, a 3 year hitch in the A.U.S. with the accompanying frustrations, orders and "snafus."

Probably due to a penchant to identify with the minorities, I found myself striving to find suitable jobs in the government for the physically and mentally handicapped as assistant Medical Director for the U.S. Civil Service Commission, setting up standards for such employment for those unfortunates who did have such handicaps.

Then the crossroads to the better part of my life, when fate and Dr. Cecil Wittson stepped in and guided me to training in psychiatry at the ripe old age of 58, sorry to break an old myth but "you can teach an old dog new tricks."

Now I find myself again with the minorities as a "geriatric psychiatrist."

Sorry, I wouldn't want it any other way.

The Orthopedic Bed

HAROLD R. HORN, M.D.

I think that most of us have frequently suggested to patients that, in the treatment of their low back pain, they get a bedboard and put it under their mattress. It seems to me that nine times out of ten when I do this, the patient immediately says, "But, doctor, I've got the hardest bed that money can buy." I know then that the case is going to be a little more difficult than I had hoped for. There seems to be a very widespread misconception that a hard bed is good for a back problem. This misconception is fostered by medical texts and some doctors. Wilson states that "the bed should be hard in order to avoid sagging of the buttock with increase in the lumbar lordosis."[1] It appears from the way that this prescription is used, that the old adage applies: namely, if a little bit is good, a lot is better. No one ever prescribes the amount of hardness in this bed. It is just a generic recommendation that the hardness is what makes the bed good, and one can only conclude that the more hardness, the better.

I think that this concept is a grave misconception, and is responsible for a lot of uncomfortable backs and possibly failures of treatment. The thing that is important about the orthopedic bed is not how hard it is, but how level a platform it provides for sleeping, and how well it distributes weight from prominences to hollows. It is possible for a very hard bed to sag very badly, and it is perfectly possible for a level orthopedic bed to be quite comfortably soft. One of the main offending elements in the creation of good bedding is the tradition that requires springs under the mattress. There is no doubt that a boxspring is better than the old fashioned sheet of springs, because the latter invariably falls into a curve. This is improved somewhat by the construction of the boxspring, but the sagging element to this curve is never entirely eliminated. If you look at the advertisements from mattress companies as they demonstrate the function of their innerspring mattresses, you will invariably see that the illustration pictures the boxspring as remaining perfectly straight. There is never any indentation pictured in the boxspring element of the bed. Apparently the mattress company realizes the virtue of having this support level, but they fail to point out the fact that the boxspring does not provide this level support for the mattress. One mattress is available with a board built into the boxspring. The only thing that springs beneath the bedboard do is allow the board to go up and down. They have no cushioning effect whatsoever on the overlying human body.

People who have a very expensive and well made boxspring-mattress-combination would be very surprised at the difference made in their bed if a wooden box were substituted for the boxspring. It is my contention that this is exactly what should be done to provide good bedding. If you place a medium-firm, foam rubber mattress on top of the wooden box, it can be perfectly soft for comfortable sleeping, and yet completely firm and level for good orthopedic support. Such a box is easily made with quarter-inch plywood on the bottom, one-inch lumber on the sides, and one-half inch plywood on the top. Three cross members of one-inch lumber should be used across the interior of the box to prevent sagging of the upper lid of plywood. This lid can be easily removable, and the box used for storage of a large quantity of clothing or bedding.

Some patients, of course, automatically achieve this type of support when they put their mattress on the floor. However, if they have already purchased a hard mattress they are unnecessarily uncomfortable. Anyone who thinks that a hard bed is good for your back should throw a couple of blankets on the floor and sleep on that all night. It is quite likely that a normal back will wake up with considerable aching. It is true that this maneuver often helps the patient with severe disc disease. However, this is because the relief they get from the support from the floor overshadows the aching caused by the hardness. They would have gotten much better relief with a foam rubber mattress to cushion the hard spots.

The concept of a wooden box instead of a boxspring is a little difficult to sell at first because of the pressure of tradition. However, those who try it find it to be a significant improvement in sleeping comfort. I have recommended it to my colleagues, and they have used it with considerable success. The ideal situation in which to institute this program is when a patient is contemplating purchasing new bedding. The monetary savings can be considerable. The boxspring usually accounts for at least half of the combination mattress and boxspring.

When it comes to distributing weight from the bony prominences to the more hollow areas of the body, the wheat bed was recommended by Tracy.[2] Variation on this involved the use of partially expanded polystyrene granules to make what closely resembled the wheat bed. This was described by Hill in 1973.[3] Neither of these approaches has gained much circulation in the United States, and the most practical approach appears to be the foam mattress. Latex foam rubber is the ideal material for the construction of the mattress. Foam rubber mattresses are rated according to the density, but this is actually measured by compression. One company rates a medium mattress at 25 to 30 lb, a firm mattress 30 to 35 lb, and an extra-firm mattress 35 to 40 lb. A 34 lb mattress is very hard to sleep on. 31 lbs is more tolerable. I believe 28 lbs is about ideal. The foam rubber mattresses are more healthful because they adjust more efficiently to body contours than a mattress made with springs, insulation and cotton. Different companies have different standards which they have set up themselves. There are no general standards in the market. There is a need for the medical profession to get together with the bedding industry and set up standards so that everyone would know what is being built, and what was being prescribed. Latex Foam rubber should not be confused with polyurethan foam. Some of the polyurethan foam mattresses are very poor. Latex foam is becoming difficult to get. There is a carbamate foam which is a very close approximation.

There are some additional advantages which attach to the use of a box bed. The bed does not bounce or shake when a bed-mate moves or turns in bed. There is also no tendency to roll off the sagging edges of the bed. In the same manner, there is no tendency for two partners to roll into a depression in the middle of the bed. However, this latter could in certain cases be considered a disadvantage.

No attempt has been made in this paper to analyze the water-bed or compare it to the box bed. However, it has been said that couples who use water beds tend to drift apart.

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Agents Affecting Adrenergic Function In Antihypertensive Therapy — I*

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and

GERALD L. WOLF, M.D., Ph.D.

Reserpine

RESERPINE (and other rauwolfia alkaloids) exerts its antihypertensive effect by interfering with synaptic transmission at postganglionic sympathetic nerve endings. This effect occurs at central as well as peripheral synapses. By depleting the adrenergic neuron of norepinephrine reserpine diminishes sympathetic stimulation at effector sties (Figures 1 and 2). It is important to note that *total* depletion of norepinephrine from its storage granules does not occur. Consequently, sympathetic tone is reduced, but not abolished, and the body's reflex mechanisms are still operative, although they are sluggish.

Although depletion of norepinephrine (and serotonin) also occurs centrally, the major hypotensive effect results from the peripheral actions on the heart and blood vessels. In the heart, depletion of catecholamine stores may result in bradycardia, diminished myocardial contractility, and reduced cardiac output. The same amine depletion in blood vessels causes a sustained fall in total peripheral resistance. The released catecholamines may cause a transient rise in blood pressure, but this is of no consequence unless the patient is being treated simultaneously with a monoamine oxidase inhibitor. In this circumstance, the hypertensive response is greatly augmented and prolonged.

The basic hypotensive mechanism of reserpine is also responsible for most side effects encountered with its use. Depletion of catecholamines and serotonin from brain tissue accounts for the most commonly observed side effect, sedation. Reserpine can also induce behavioral alterations ranging from depression through overt psychoses and suicidal tendencies, and should never be prescribed in patients with a history of depression or emotional disturbances. A crucial distinction however must be made between lethargy, which some patients actually welcome, and depression, which is recognized as undesirable and extremely unpleasant, as well as potentially dangerous. Myocardial depression caused by catecholamine depletion rarely leads to congestive heart failure, but caution must be exercised in prescribing reserpine where failure already exists. Recent European studies have reported an increased incidence of breast cancer in women receiving reserpine for prolonged periods, but a recently published study has refuted these results.[1]

Other less serious side effects are a result of the relatively unopposed parasympathetic activity. Nasal congestion is very common. Excessive salivation, bradycardia, increased frequency of bowel movements or diarrhea, and increased gastric secretion may be controlled with parasympatholytic agents. Hypersecretion presents a relative contraindication to reserpine use in patients with active peptic ulcers. Postural hypotension is rare and mild if present, while fluid retention is common.

Experts differ widely on the proper role of reserpine in routine management, but it is unquestionably more effective than tranquilizers and sedatives. The higher frequency of potentially harmful side effects with rauwolfia compounds makes them less desirable as the sole drug in treating mild to moderate hypertension. However, when combined with an oral diuretic or hydralazine, reserpine becomes a very useful addition to antihypertensive drug regimens. Due to its mechanism of action within the adrenergic neuron, reserpine's onset of action may be delayed for several weeks; similarly, effects may persist for some time after withdrawing the drug.

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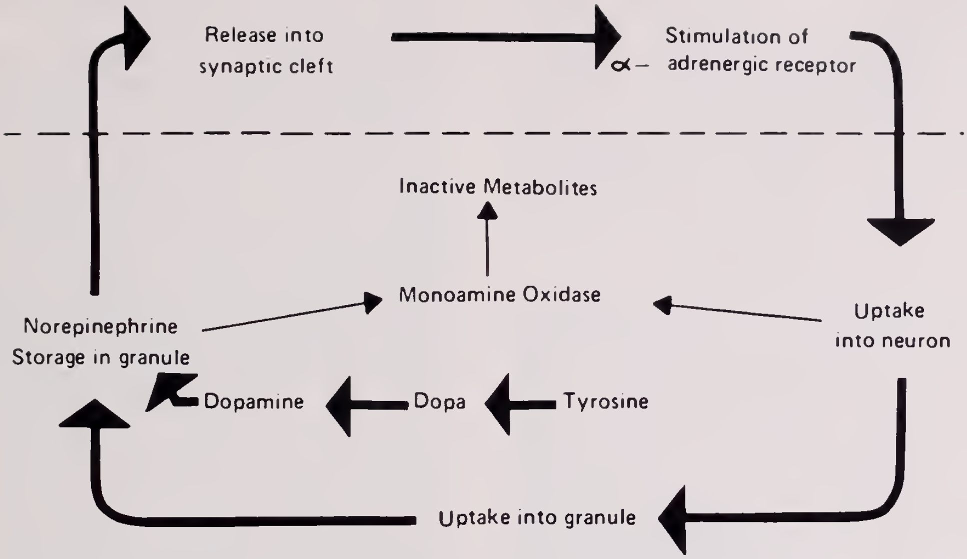
Release into synaptic cleft
Stimulation of α– adrenergic receptor
Inactive Metabolites
Monoamine Oxidase
Norepinephrine Storage in granule
Uptake into neuron
Dopamine
Dopa
Tyrosine
Uptake into granule

Figure 1: The normal sequence of events during neurochemical transmission at the adrenergic neuron. Norepinephrine is synthesized from tyrosine and bound in the storage granules. After being released to activate alpha receptors, the transmitter is returned to the storage granules by two separate uptake mechanisms. Any unbound norepinephrine in the cytoplasm is metabolized by monoamine oxidase (MAO). The broken line delineates extraneuronal (above) from intraneuronal events. Relative importance of the various pathways is indicated by width of the arrows.

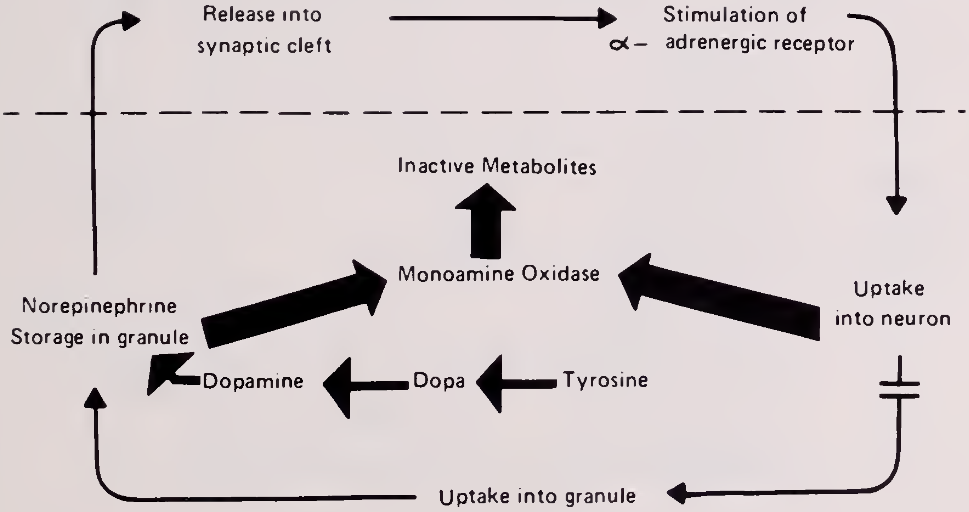
Release into synaptic cleft
Stimulation of α– adrenergic receptor
Inactive Metabolites
Monoamine Oxidase
Norepinephrine Storage in granule
Uptake into neuron
Dopamine
Dopa
Tyrosine
Uptake into granule

Figure 2. The effect of reserpine on adrenergic transmission. Norepinephrine is released from the storage granules, while further uptake is blocked, both actions leading to an increase in inactive metabolites through MAO.

Reserpine is a component of 47 different drug products. The physician must be aware of this to ensure that the total daily dose to his patients does not exceed 0.5 mg. Above this amount one risks the adverse reactions of ulcer and suicide without hope of additional antihypertensive effect. Our prescription survey has shown that this recommended dose limit was exceeded in about 15% of the prescriptions for formulations containing reserpine (Figure 3).

Alpha Methyldopa

Alpha methyldopa also has a sympatholytic effect at the adrenergic neuron, but its mechanism of action differs markedly from reserpine. It was originally developed as a dopa decarboxylase inhibitor, designed to reduce the synthesis of norepinephrine. However, a far more important mechanism is its entrance into the biosynthetic pathway and conversion to alpha methylnorepinephrine, a much less potent stimulant than norepinephrine. This "false transmitter" results in diminished peripheral sympathetic stimulation and consequent fall in blood pressure (Figure 4). Because alpha methyldopa crosses the blood brain barrier, central norepinephrine depletion, leading to a direct inhibition of medullary vasomotor centers, also contributes to the hypotensive effect.

Hemodynamic consequences of alpha methyldopa therapy involve primarily a drop in peripheral resistance, with minimal effects on cardiac output and heart rate. Postural hypotension is frequent but not severe because alpha methylnorepinephrine still retains some of norepinephrine's alpha adrenergic-stimulating capacity. Compensatory sympathetic reflexes are reduced, but not abolished. Unlike most other sympatholytic agents, alpha methyldopa maintains renal blood flow and glomerular filtration rate, because the decrease in renal vascular resistance is greater than the fall in blood pressure.

The most common side effects of alpha methyldopa are drowsiness and sedation. This soporific effect tends to abate with chronic use, as does the dry mouth which often accompanies it. Depressive reactions similar to those found in patients taking rauwolfia are rare. Other untoward effects

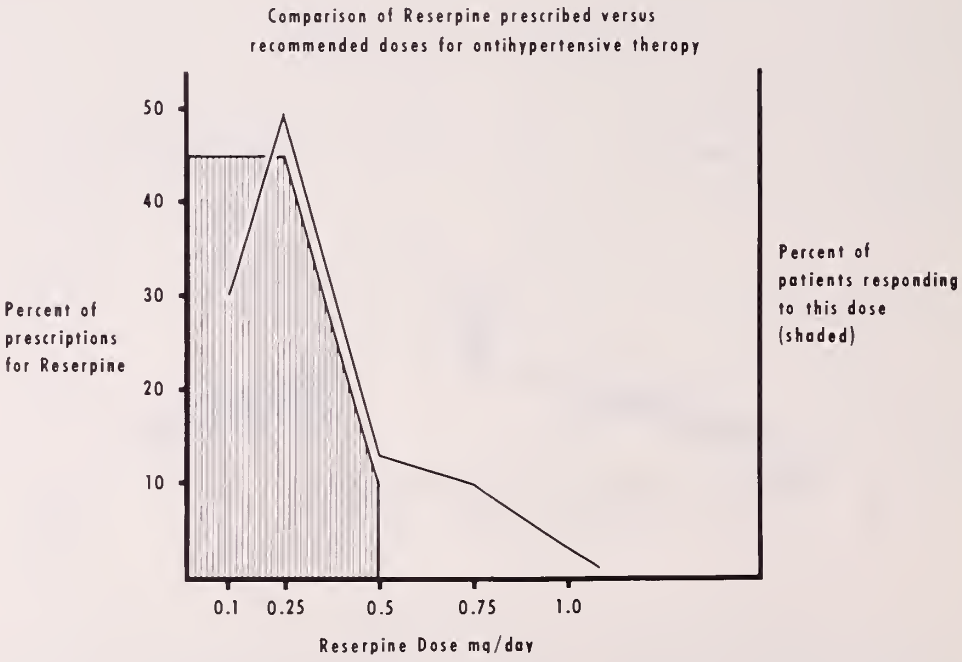

Figure 3: Comparison of reserpine prescribed versus recommended doses for antihypertensive therapy. The shaded portion is the expected optimum dose for an average hypertensive adult population. The solid line indicates the percent of reserpine prescriptions at each total dose. In general, the 0.1 mg dose was mildly underutilized. Of greater concern is the number of prescriptions for daily doses greater than 0.5 mg. These amounts are not recommended because the risks outweigh any minor improvement probable in blood pressure control.

include a general feeling of weakness, various gastrointestinal complaints, and the fluid retention common to most non-diuretic antihypertensive medications.

Several undesirable effects have been attributed specifically to alpha methyldopa therapy. A flu-like illness, characterized by high fever and possible hepatocellular damage without jaundice, has been noted, while a positive direct Coomb's test is found in up to 20% of patients receiving alpha methyldopa. Both of these effects are reversible if therapy is withdrawn. Alpha methyldopa is contra-indicated in active liver disease and when concurrent evidence of hemolytic anemia is present.

Since alpha methyldopa must enter the norepinephrine biosynthetic pathway in order to be effective, its action is delayed for 4-6 hours after oral ingestion. It can be of value in patients with mild to severe degrees of hypertension, but poses a titration problem, because the effective dose range varies widely. Alpha methyldopa's short duration of action requires administration three times a day, and it is probably the most expensive antihypertensive agent.

The two most common errors in the use of alpha methyldopa are insufficient dosage and failure to combine it with a diuretic. More than three quarters of the prescriptions written for this drug in Nebraska are for 250 mg or 500 mg once a day! The average effective dose is approximately 2 gm (range: 500 mg — 3 gm) given in divided amounts three times a day. The manufacturer is now marketing a 500 mg tablet, partially to alleviate these underlying faults.

Alpha methyldopa is of particular value in, but should not be limited to, patients with poor renal function. As renal function falls to 25% of normal, dosage must be reduced to compensate for decreased excretion of the drug. Although this drug is not very effective in low renin patients, it is an alternative choice to propranolol for high renin hypertension. In severe hypertension, alpha methyldopa and a diuretic added to guanethidine regimens permit better and smoother control and also allow smaller doses of guanethidine to be used.

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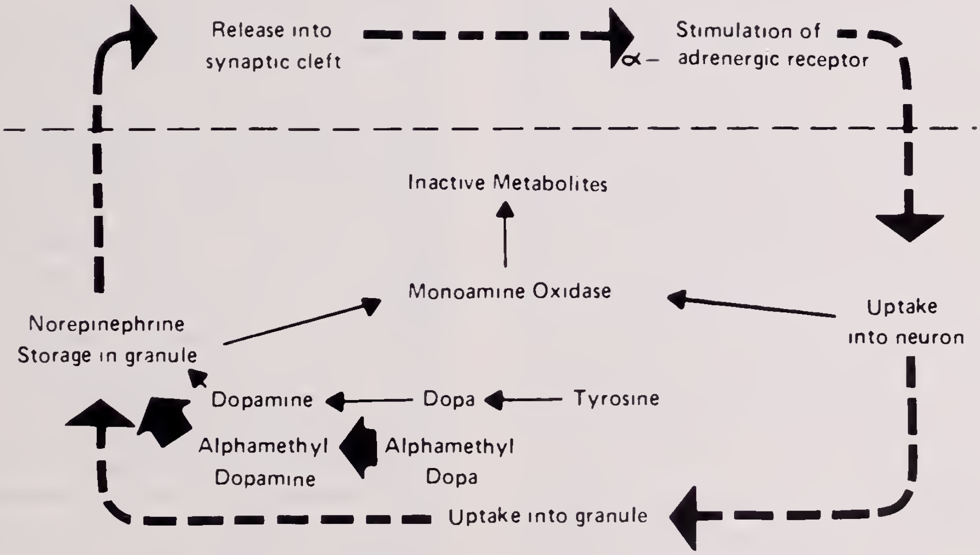

Figure 4. The effect of alpha methyldopa on adrenergic transmission. Synthesis of alpha methylnorepinephrine leads to reduced participation of norepinephrine in the transmission process.

Behavior Therapy for Obesity: Another Fad or a New Set of Facts?

PART II

A Study of Two Behavior Modification Procedures With Nutritionists As Therapists [3]

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Pursuant to these research questions, a comparison of two behavioral weight loss procedures with nutritionists as therapists was undertaken. The two treatments were: 1) a multiple principle, many technique based self-control treatment modelled after that used by Wollersheim[27] and Hagen[23] and much like that described by Harris,[24] and Penick et al[26] and; 2) a self-control treatment package based almost exclusively on the principle and techniques of stimulus control.

Treatment outcome measures taken immediately after treatment and 3, 6, 9, 12 and 18 months therefrom included total loss in body weight, percentage of unwanted weight lost and percentage of excess weight lost.

Subjects

Fifty-four female volunteers from a small midwestern community served as subjects. This subject sample was taken from respondents to an advertisement in a local newspaper and radio announcements of a free weight reduction program being offered through hometown Lincoln University. Subjects were selected from the total group of volunteers avoiding extremes in age and weight (selection age limits= 25-50; percentage overweight limits= 15-60%). No volunteers were accepted who had health problems (e.g., diabetes) or had recently started or stopped taking medicine that could interfere with their reduction efforts (e.g., diuretics).

The final group of fifty-four subjects averaged 36.6 years of age (*SD*= 8.1), 178.4 weight in pounds (*SD*= 17.6) and 39% overweight (*SD*= 12.3) as determined by the Metropolitan Life Insurance[36] weight standards for women.

Therapists

The therapists were three female nutritionists, two with Ph.D.s and the third with a M.S. degree in nutrition. Only the latter had any experience in behavior modification, having just completed her Masters thesis in that area on the effectiveness of a self-control procedure in achieving weight losses in college age women.[37] The nutritionists-therapists, competent to supply the nutrition information included in the treatments without special instruction, were trained in the behavior modification procedures with selected readings, detailed treatment manuals, and a number of instruction and question-and-answer briefing sessions. Each therapist conducted an equal number of groups in each therapy condition, one therapist conducting two and the other therapists one group in each of the two behavioral treatment conditions.

Treatment

Fifteen weekly treatment sessions lasting approximately one hour each were held in small groups of 5—8 subjects. The sessions were held in a large room containing a beam scale, bulletin board, blackboard, chairs arranged in a semicircle and an audio-visual taping machine, camera and television monitor. All treatment sessions were videotaped for monitoring and training purposes, each session beginning with the subjects being weighed in front of the camera and examining themselves on the T.V. monitor. The expressed intent of both treatments was to teach subjects how to lose weight through reduced consumption of everything without the help of a special, restrictive diet. The specific nutrition and behavioral control lessons, subjects were told, would show them how this could be done.

"Behavioral control" [*Group BC*]. This treatment was patterned after the weight-loss treatment described by Wollersheim,[27]

both ours and Wollersheim's being a conglomerate of several behavioral, self-control procedures. In addition, nutrition information was presented to subjects with application to the control of eating. Included throughout or at the various stages of this treatment was: a) a thorough consideration of the role and importance of a public and private commitment to weight loss; b) monitoring of daily food intake and weekly weight changes with written records; c) social pressure from the therapist and other group members on each subject to continue and sustain weekly weight losses; d) instruction in specific, behavioral self-control techniques. Included among the latter were principles of shaping, stimulus control, manipulation of deprivation and satiation, self-reward, response chaining, aversive control and response substitution.

Presented alongside the self-control instruction were eleven nutrition lessons covering such topics as calories, food groupings, portion control, physical activity, food fads, proteins, vitamins and minerals. As part of this nutritional aspect of treatment subjects were given calorie booklets and told to compute their daily caloric intake from their daily food intake records. Thus, the goal of treatment was to make subjects nutrition-wise as well as behaviorally self-controlling.

"Food management" [*Group FM*]. This self-control weight loss treatment drew almost exclusively from an external stimulus-control conceptualization of the overeater's problem suggested by the work of Schachter and his associates. Self-control techniques within this stimulus control focus were achieved in two important ways. First, a "personal plate" and "personal bowl," the use of which was intended to increase subjects' awareness of eating habits especially the frequency and amount of eating, were given to all subjects. The six ounce clear bowl and nine inch dinner plate with a wide rim were used throughout the fifteen weeks of treatment within the following three rules: 1) everything that is eaten must be eaten off the personal dishes; 2) the total amount of food to be eaten at any one time must be put on the plate and/or bowl *before* eating actually begins; 3) no seconds may be served to the personal plate or bowl; once the initial serving of food is eaten, eating is to stop.

In addition to the daily use of the personal dishes, subjects received nine separate lessons on the "environmental control" of eating at each of the various stages of the eating process. Thus, eating was discussed as it entails the buying, storing, cooking, serving and ingesting of food and the cleaning of the serving table and kitchen. Specific techniques to be used at each eating stage were presented each week in the form of a list of *Do's* and *Don'ts* and included such suggestions as: a) *Do* buy groceries from a menu-based shopping list after a full meal; b) *Do* store all foods, especially refrigerator foods, in non-see-through containers; c) *Don't* hover over cooking food being tempted to taste or eat it; d) *Don't* prepare or serve excessive amounts of food; e) *Don't* linger at the table or in the kitchen if you do not intend to eat; and f) *Do* eat reduced portions of all nutritious foods.

As in the Behavior Control treatment, subjects in this condition were frequently reminded of the importance of a commitment to weight loss, continuously monitored food intake and weight changes, and received weekly nutrition lessons. Calorie counting was optional with this group and some subjects did, in fact, count or estimate daily caloric intake.

Delayed behavior control and food management treatment groups. Two groups of seven subjects, one to receive Behavior Control and the other Food Management treatment, were designated Delayed Treatment groups. These subjects whose collective presence during the waiting period defines a no-treatment control group went through the same pretreatment interviews and assessments as all other subjects but began their treatments eight weeks after the other groups. Other than this delay, however, these subjects underwent the same Behavior Control and Food Management treatments as non-delayed subjects.

Procedure

At the time of their first telephone response to the public call for volunteers, it was determined whether a subject met the age and weight requirements. Sixty-six of

107 telephone inquiries so qualified and were given an initial interview. At that time a health and weight history was obtained, the program was explained, a participation-consent form signed and instruction to keep a three-day food record of everything eaten was given. Nine prospective subjects were eliminated at the time of the initial interview for health reasons and another three declined to participate. Within three weeks of the initial interview, all subjects were seen at the University of Missouri Low Level Radiation Laboratory at which time they were weighed and body composition measures taken. Within two weeks of this physical assessment, subjects were seen for a final pretreatment interview, their weights again being taken, the three-day food record collected and scheduling for the 15-treatment sessions completed. Forty subjects randomly assigned to three Food Management and three Behavior Control therapy groups began treatment the following week. The remaining fourteen subjects were assigned to the two Delayed Treatment groups and were told that, regrettably, the treatment groups were full and there would not be a nutritionist to work with them for eight weeks. All delayed-treatment subjects so informed were willing to wait through the delay and did so, receiving treatment thereafter.

At the time of the fifteenth and last treatment session, all subjects were given a Program Evaluation Questionnaire to fill out and return by mail. They were also provided a schedule of all the formal follow-up evaluations and encouraged to come in at these times to be weighed.

Acute Leukemia Presenting with Pericardial Involvement

PART II

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Case 4

A 26 year old white male was well until one month prior to admission when he developed the onset of a 30 lb. weight loss, accompanied by nonproductive cough and shortness of breath. Fever developed three days prior to admission, along with marked swelling of his lower extremities.

Physical examination revealed a temperature of 102 degrees F; marked respiratory distress was present. No cervical or supraclavicular nodes were present, however, there was a 2 cm left axillary node. The liver was palpable 4 cm below the right costal margin and the spleen was palpable 2 cm below the left costal margin. Chest findings included decreased breath sounds in the right lower lobe associated with signs of consolidation. Bilateral rales were present in both upper lobes. Cardiac examination revealed tachycardia with displacement of the PMI to 2 cm left of the midclavicular line. A marked precordial heave was present without murmurs.

The white blood count was 102,000 mm with a differential of 2% segs, 8% bands, 4% lymphocytes, and 86% lymphoblasts. PAS positive material was noted in the peripheral lymphoblasts. The bone marrow was diagnostic of acute lymphoblastic leukemia. Uric acid was normal. The bilirubin was mildly elevated at 1.5 mg%. The alkaline phosphatase was increased to 130 units and the LDH markedly increased to 820 IU. The chest x-ray revealed generalized cardiomegaly of moderate degree with marked enlargement of the superior mediastinum. A

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Table 1--Clinical and Laboratory Data, Treatment and Outcome in Patients Presenting with Pericardial Luekemia

Reference	Type of Luekemia	Age & Sex	Symptoms	Signs	Lab	Treatment	Outcome
2	ALL	5 M	Dyspnea	Tachypnea, Tachycardia Paradoxical Pulse Adenopathy	WBC 41 x 10^3 (97% Blasts) CXR Cardiomegaly EKG ↓voltage, ST-T changes	Radiotherapy Prednisone	Remission
2	ALL	15 M	Chest Pain Orthopnea Dyspnea	Fever Hepatomegaly Adenopathy	WBC 6.6 x 10^3 (20% Blasts) CXR Cardiomegaly EKG ↓voltage ST-T changes	Radiotherapy Prednisone	Remission
3	ALL	15 F	Dyspnea Cough Wt. Loss	Paradoxical Pulse Fever, Diminished Heart Sounds, Neck Vein Distention	WBC 7.5 x 10^3 (No Blasts) CXR Cardiomegaly EKG ST-T Changes	Pericardiocentesis	Death
4	ALL	26 M	Chest Pain Cough Orthopnea Dyspnea	Hypotension Fever Paradoxical Pluse Hepatosplenomegaly Adenopathy	WBC 11.3 x 10^3 (35% Blasts) CXR-Massive Pericardial Effusion EKG-ST-T Changes Consist Pericarditis	Pericardiocentesis Prednisone 6-MP	Remission
5	?	18 M	Dyspnea Orthopnea	Tachycardia Anasarca Fever Hepatomegaly Paradoxical Pluse	WBC 18 x 10^3 (No Blasts) CXR Cardiomegaly EKG-Electrical Alterans ST-T changes	Pericardiocentesis Pericardial Stripping	No Remission

Table 1 continued

Case							
#1	AM.L	15 M	Malaise Cough Chest Pain	Fever Adenopathy Hepatosplenomegaly Pericardial rub Cardiomegaly	WBC 320 x 10^3 (50% Blasts) CXR Cardiomegaly Pericardial Effusion EKG-ST-ST-T changes	Ara-C Vincristine Prednisone Pericardiocentesis Pericardiectomy	No Remission
#2	AMML	29 F	Wt. Loss Fatigue Dyspnea Chest Pain	Fever, Purpura Splenomegaly Tachycardia Pericardial rub	WBC 25 x 10^3 (20% Blasts) CXR Cardiomegaly EKG-S.T.	Ara-C Vincristine Steroids	No Remission
#3	ALL	6 M	Cough Respiratory distress	Fever Adenopathy Splenomegaly Cardiomegaly	WBC 26 x 10^3 (15% Blasts) CXR-Mediastinal mass Cardiomegaly Pericardial Effusion EKG-Normal	Vincristine Prednisone	Remission
#4	ALL	26 M	Wt. Loss Cough Dyspnea Dependent Edema	Fever Hepatosplenomegaly Cardiomegaly	WBC 102 x 10^3 (80% Blasts) CXR-Mediastinal mass Cardiomegaly EKG-S.T.-ST-T changes	VAMP	Remission

large right pleural effusion was present with bihilar pulmonary edema. Thoracentesis was performed with removal of 1500 cc of serosanguineous fluid containing 97% mononuclear cells. Induction therapy was begun with vincristine, prednisone, methotrexate, and 6-MP. At the end of four weeks induction the hemogram had returned to normal and the bone marrow showed intense erythroid hyperplasia. Serial chest x-rays over the same period of time showed gradual resolution of the anterior mediastinal mass. The pleural effusion did not reaccumulate. The cardiac shadow, however, continued to be enlarged showing left ventricular prominance. EKG showed only sinus tachycardia.

The patient was discharged on 6-MP and methotrexate maintenance chemotherapy. Six weeks later he was readmitted for prophylactic intrathecal methotrexate. A repeat chest x-ray revealed a normal cardiovascular silhouette. The patient remains in remission one year after his original diagnosis.

Discussion

In reviewing the English literature, we were able to find only 5 other examples of acute leukemia presenting as pericarditis.[1-4] The clinical findings, pertinant lab data, treatment and outcome are listed in table 1. The initial complaints are those classically seen in pericarditis with effusion and tamponade. Most patients had dyspnea and/or orthopnea. Chest pain was present in 44%. The physical findings were those of both pericarditis with tamponade (fever, friction rub, tachypnea, tachycardia, peradoxical pulse) and leukemia (lymphadenopathy and organomegaly). The hematologic parameters were not as severely depressed as is often seen in acute leukemia. This may be due to the illness being discovered with damage to the pericardium before more severe bone marrow failure had a chance to occur. The chest x-rays typically showed an enlarged cardiac shadow and the EKG's tended to low voltage with ST-T changes consistant with pericarditis.

The treatment of extramedullary acute leukemia often includes measures directed at the organ involved in addition to systemic chemotherapy (e.g. intrathecal methotrexate for CNS leukemia). Applying this principle to pericardial leukemia, it has been suggested that radiotherapy should be directed to the heart. Jaffe et al.[2] used radiotherapy in combination with steroids in two children with lymphoblastic leukemia and felt that these measures caused rapid resolution of the symptoms and eliminated the need for surgical intervention. While radiotherapy may at times speed resolution, particularly when the symptoms of tamponade are prominant, in a disease as responsive to chemotherapy as acute lymphoblastic leukemia it may not be necessary. This was the situation in the two cases of lymphoblastic leukemia reported here. In both cases the leukemic population was very sensitive and to chemotherapy and the pericardial effusion resolved without surgical intervention. However, in a disease that is much more resistant to chemotherapy such as nonlymphoblastic acute leukemia the use of radiotherapy might purchase time to allow a remission to be obtained. As is demonstrated in case 1, surgical intervention cannot always be depended on to relieve the symptoms of tamponade — probably because the fluid can be loculated and not easily drained. Because of the rapidly fatal course of two patients with nonlymphoblastic pericarditis reported here, an early clinical diagnosis and an aggressive therapeutic approach seem necessary to change the prognosis of this group. Perhaps a combination of pericardiectomy and radiation therapy is indicated. The use of cardiotoxic daunomycin probably should not be combined with cardiac radiation to avoid possible enhancement of cardiac damage.

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The Effective Use of Nandrolone Decanoate In the Management of the Anemia Of Uremia: A Prospective Study

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Summary — Abstract

The value of nandrolone-decanoate in the management of anemia in patients on chronic hemodialysis was studied prospectively for nine months. With a dose of 100 mg intramuscularly weekly there was an increase in the hemoglobins of nephric but not anephric patients. Patients in both groups had a striking increase in dry body weight. No untoward side effects (in particular neither virilization nor hepatic toxicity) were noted during the study.

ONE of the most perplexing problems in the management of chronic renal failure is the "anemia of uremia." Many etiologic factors have been proposed to explain this anemia, acting through mechanisms that decrease RBC production, increase RBC destruction or both. In the special case of uremic patients on hemodialysis the following mechanisms seem to be operative. First, lack of erythropoietin production by the kidney seems to be the major factor in the anemia.[1,2] Secondly, loss of iron (i.e. via RBC loss) and folic acid during dialysis can be significant unless replaced. Mechanisms of lesser importance include blood loss related to the coagulopathy of uremia and hemolysis due to unidentified circulating toxins in uremia.[1,2]

Androgens increase RBC mass by increasing erythropoietin production by the kidney.[3-6] Their use of uremic patients on hemodialysis has consistantly increased the hemoglobin of nephric, but not anephric, patients.5 This prospective clinical trial was undertaken to test the efficacy of nandrolone decanoate, a parenteral androgen that can be given weekly with reportedly low virilizing potential,[7] in stimulating erythropoiesis in patients undergoing regular hemodialysis.

Materials & Methods & Patients

Sixteen consecutive patients (13 nephric and 3 anephric) were studied. The diagnosis, age, sex and initial hemoglobin can be seen in Tables 1 and 2. All had normal serum folate and vitamin B_{12} levels and normal or increased bone marrow iron stores. All but two patients had been on regular hemodialysis for a minimum of three months at the beginning of the study. None had received anabolic steroids in the preceding six months. Three patients failed to complete the study. Two patients refused the intramuscular injections of androgens and one was removed because of unrelated medical problems.

The study was designed to last for nine months. During the first six months all patients were given weekly intramuscular injections of 100 mg of nandrolone decanoate. Each also received daily multi-vitamins containing 40 mg of iron and 350 mcg of folic acid, weekly intravenous injections of 1000 mcg of vitamin B_{12} and a diet containing fifty to seventy grams of protein daily. Dialysis frequency, hours and type of dialyzers remained unchanged during the study. Hemoglobin levels were done before each dialysis and complete blood counts and chemistries were obtained monthly. After six months all patients were begun on weekly doses of 50 mg of intravenous iron (our usual schedule), and the dose of nandrolone decanoate was increased to 200 mg per week in the anephric patients. During the entire

Table 1.--Selected Clinical and Laboratory Data of Nephric Patients

Patient No.	Sex	Age	Diagnosis	Hemoglobin, gm/100 ml Before	After 3 mo.	After 6 mo.	After 9 mo.	Transfusions required
1	F	65	Diabetic Nephrosclerosis	7.3	7.4	7.2	7.6	one after a coil rupture
2	M	68	Diabetic Nephrosclerosis	9.5	12.7	13.4	12.7	0
3	M	37	Diabetic Nephrosclerosis	7.4	9.6	7.9	8.7	0
4	F	49	Chronic Glomerulonephritis	7.5	8.6	8.8	10.0	0
5	M	74	Obstructive Uropathy	7.4	8.6	8.6	8.6	0
6	F	42	Lupus Erythematosus	9.0	10.8	12.5	14.6	0
7	M	64	Diabetic Nephrosclerosis	7.0	7.9	9.7	9.8	0
8	F	49	Chronic Pyelonephritis	8.8	8.4	7.7	9.7	0
9	M	38	Chronic Glomerulonephritis	6.2	7.6	7.7	8.2	0
10	M	24	Chronic Glomerulonephritis	7.0	7.0	7.2	-	one during 1st month
			Mean	7.7	8.9	9.0	10.0	
			Mean Change		+1.2	+1.3	+2.3	
			Std Error of Mean		±0.3	±0.5	±0.5	
			*Probability		<.05	<.05	<.01	

*Statistical significance tested by paired t-test study transfusions were given only when required to treat symptomatic anemia.

Results

The hemoglobin of each nephric rose during the study period (Table 1). There was a mean increase of 2.3 ± 0.5gm/DL ($p < .01$). The mean hemoglobin of the anephric patients actually decreased slightly, from 6.5 gm/DL to 5.9 gm/DL, but the numbers were too small for statistical evaluation (Table 2).

Except for one patient (#10) who received one unit immediately after beginning the study and another who received one unit at the time of a dialysis coil rupture, no transfusions were necessary in the nephric patients. The anephric patients continued to require blood replacement to remain asymptomatic from anemia. There was a suggestion of a decrease in the transfusion requirement of patients #12 and #13.

Nine of the ten anephric patients demonstrated dry weight increases with a mean increase of 11 ± 2.1 pounds for the nine month period ($p < .001$). As would be expected this increase in muscle mass was accompanied by a significant increase in the mean serum creatinines — from 12.2 mg/DL to 16.5 mg/DL (Table 3). The anephric patients showed similar increases in dry body weight (mean 10 pounds) and serum creatinine (mean 4.1 mg/DL) during the study (Table 4). This was also expected as it reflects a direct rather than indirect (e.g. increase in hemoglobin via erythropoietin release) action of the drug.

Excluding the two patients who objected to the intramuscular injections there were essentially no significant untoward side effects observed related to the study. In particular there were no signs of virilization or signs of hepatic dysfunction noted in any of the patients.

Discussion

The mechanism of action of androgens in stimulating erythropoiesis has been suggested to be both indirect (i.e. via erythropoietin release from the kidney) and, more recently, direct.[3-6] The indirect mechanism via erythropoietin release is well documented.[3-6] The direct mechanism is more speculative and suggests that androgens act directly on bone marrow stem cells causing them to shift from the G_0 (resting) to G_1 phase in which they are more sensitive to erythropoietin stimulation. This second, direct mechanism of action constitutes a rationale for the use of androgens in anephric patients. However this study, unlike some others, found no response in anephric patients.

Table 2.--Selected Clinical and Laboratory Data of Anephric Patients

Patient No.	Sex	Age	Diagnosis	Hemoglobin, gm/100 ml Before	After 3 mo.	After 6 mo.	After 9 mo.	Transfusions 1st 3 mo.	Transfusions 2nd 3 mo.	Transfusions 3rd 3 mo.
11	F	15	Chronic Glomerulonephritis	6.4	7.0	6.4	6.0	4	7	7
12	M	27	Chronic Glomerulonephritis	6.9	7.2	6.4	6.2	4	1	2
13	F	31	Chronic Glomerulonephritis	6.1	7.0	6.6	5.5	2	2	0
			Mean	6.5	7.1	6.5	5.9			

Table 3.--Change in Body Weight and Serum Creatinine in Nephric Patients

Patient No.	Weight, lbs.		Creatinine, mg/100 ml	
	Before	After	Before	After
1	107	126	10.8	13.5
2	155	170	10.8	17.8
3	143	140	7.9	14.2
4	112	125	11.3	14.0
5	149	169	7.2	12.1
6	116	124	11.9	19.8
7	178	186	13.7	17.0
8	120	129	12.7	13.0
9	160	174	18.8	22.0
10	147	154	16.8	22.0
Mean	138	149	12.2	16.5
Mean change	11.0		4.4	
Std. error of mean	±2.1		±0.7	
*Probability	<.001		<.001	

*Statistical significance tested by paired t-test

Table 4.--Change in Body Weight and Serum Creatinine in Anephric Patients

Patient No.	Weight, lbs.		Creatinine, mg/100 ml	
	Before	After	Before	After
11	86	90	11.4	16.2
12	98	120	12.0	17.8
13	114	118	12.3	14.0
Mean	99.3	109.3	11.9	16.0
Mean Change	10.0		4.1	

The findings of this study are in agreement with two other recent reports on the use of nandrolone decanoate in the anemia of renal failure.[8,9] Both of these studies lasting three and five months, also found increases in hemoglobin, body weight and serum creatinine with a paucity of serious side effects. The continued increase in the hemoglobin over the nine months of the present study suggest the effect on erythropoiesis can be progressive and prolonged. This is in contrast to another recent report which found the hemoglobin rise to be transient.[10]

The hemoglobin rise during this study was not step-wise during the three, three-month periods, with the majority of the increase coming in the first and third and an apparent plateau during the second. This irregular rise in hemoglobin may be explained by the addition at six months of iron-dextran complex to replace iron lost in the dialyzer. The plateau in hemoglobins may have been secondary to iron deficiency that developed during the first six months of the study. No repeat bone marrows were done to confirm this. If this is the correct explanation, replacing the iron merely allowed the nandrolone decanoate to reach its full effect. An alternative explanation would be that the intravenous iron-dextran complex had a direct stimulating effect on erythropoiesis. While this has been previously suggested, it was with much higher doses.[11].

The optimal treatment for the anemia of uremia would be to replace the missing erythropoietin. Until this is available the indirect "administration" of erythropoietin by increasing its production with androgens will continue to be used. The ability of nandrolone decanoate to stimulate erythropoiesis without significant virilizing or hepatic side effects makes this a particularly attractive agent for long term use in the management of anemia in patients undergoing chronic hemodialysis.

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President's Page

S. 3205

The Talmadge Bill

Medicare and Medicaid Administrative and Reimbursement Reform Act

NO!

A proposal for Medicare-Medicaid administrative and reimbursement reform was suggested by Senator Herman Talmadge of Georgia on June 20, 1975. The legislative proposal was introduced to the United States Senate and appears in the *Congressional Record* of March 25, 1976.

Have you read this bill? Are you aware of its provisions? The changes proposed in this bill affect every physician in the private practice of medicine in this country.

You will recall that the 1975 Medicare Act specifically set forth the principle that the implementation of the Act would not and should not interfere in the practice of medicine. Apparently, Senator Talmadge now feels that such a principle is passe and that the federal government must become involved in medical practice.

Among the many provisions of the bill is one that revises the definition of "physicians' services." It would exclude a service unless it were "personally performed by or personally directed by a physician" or was of "a nature that its performance by a physician is customary and appropriate." Since the bill specifically refers to anesthesiology and pathology services, one might quickly come to the conclusion that it does not affect me but only a few physicians in these specialties — specialties that have often been referred to as hospital based specialties.

Note the subtle change in the words used in the bill. No longer are the words "hospital based physicians" used; now, the terms "hospital associated physicians" are used. How many of you are not associated in some way with a hospital? The bill tells each of you which of the services you provide your patient are physicians' services that will be reimbursed and which of the services will not be reimbursed. Can this be done and have no effect on the practice of medicine? Of course not!

Again, unity of the profession is called upon to oppose this attempt at control of the practice of medicine in this country. Do not let the specific reference to anesthesiology and pathology lull you into a sense of complacency. Each of us stands to lose further control of our medical practice by this bill. If such becomes law, the Talmadge Bill (S. 3205) would be a giant step forward in the domination of the medical profession by a bureaucratic government. We cannot acquiesce to such. Unity of the medical profession in opposition to this threat of complete domination by the federal government is mandatory.

In addition to our long-standing unified efforts in providing the best possible medical care to our patients, we must now be politically active in order to safeguard our capability in delivering such care. We must unite as one voice in opposition to this bill in the political arena as well as any other politically motivated issue that interferes with our practice of medicine to the detriment of our patients.

Harlan L. Papenfuss, M.D.
President

UNITY

Our Medical Schools

AOA.

Twenty-nine new members were inducted into the University of Nebraska College of Medicine's chapter of Alpha Omega Alpha April 28, 1976.

Four faculty members, Drs. Joseph C. Scott, Jr., Frank J. Menolascino, Michael Sorrell and Hobart E. Wiltse were initiated as were 25 students:

Monte Anderson, Omaha; Thomas Atkins, Sidney; David Borg, Minden; John Chamberlain, Omaha; James Commers, Lincoln; Thomas Conley, Omaha; Katherine Gaines, Omaha; Roger Harms, Auburn; Peter Holm, Connecticut; James Horrocks, Norfolk; Donald Kerr, Omaha; Steven Krueger, Lincoln; James Lindau, Wahoo; James Lohse, Lincoln; Gretchen McCoy, David City; Ruth Miller, Omaha; Daniel Moravec, Jr., Lincoln; Bruce Ring, Wayne; Rand Ritchie, Grand Island; Michael Robinson, South Dakota; Daniel Schafer, Omaha; Charles Severn, Omaha; Ed Vandenberg, David City; Michael Warlick, Lincoln; Janis Weeks, West Point.

Family practice review.

Response to this year's annual Family Practice Review at the University of Nebraska Medical Center has been so great that another session of the two-week course has been scheduled for October 4-15, 1976.

The September 13-24 session has been closed to future registrants.

Cost of the course is $475 and includes breakfasts and lunches.

Dr. Margaret Faithe, Associate Professor of Family Practice and Assistant Dean for Continuing Medical Education, is coordinator of the course designed to prepare family physicians for the American Board of Family Practice examination.

Specialists at the Medical Center will conduct sessions dealing with their various fields. In addition there will be sessions devoted to tips on taking tests.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: In adults, urinary tract infections complicated by pain (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli, Klebsiella-Aerobacter, Staphylococcus aureus, Proteus mirabilis,* and, less frequently, *Proteus vulgaris*) in the absence of obstructive uropathy or foreign bodies. **Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides.** Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Children below age 12; sulfonamide hypersensitivity; pregnancy at term and during nursing period; because Azo Gantanol contains phenazopyridine hydrochloride it is contraindicated in glomerulonephritis, severe hepatitis, uremia, and pyelonephritis of pregnancy with G.I. disturbances.

Warnings: Safety during pregnancy not established. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, Stevens-Johnson syndrome, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *G.I. reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

Dosage: Azo Gantanol is intended for the acute, painful phase of urinary tract infections. *Usual adult dosage:* 2 Gm (4 tabs) initially, then 1 Gm (2 tabs) B.I.D. for up to 3 days. If pain persists, causes other than infection should be sought. After relief of pain has been obtained, continued treatment with Gantanol (sulfamethoxazole) may be considered.

NOTE: Patients should be told that the orange-red dye (phenazopyridine HCl) will color the urine.

Supplied: Tablets, red, film-coated, each containing 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl—bottles of 100 and 500.

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When pain complicates acute cystitis*

Azo Gantanol®

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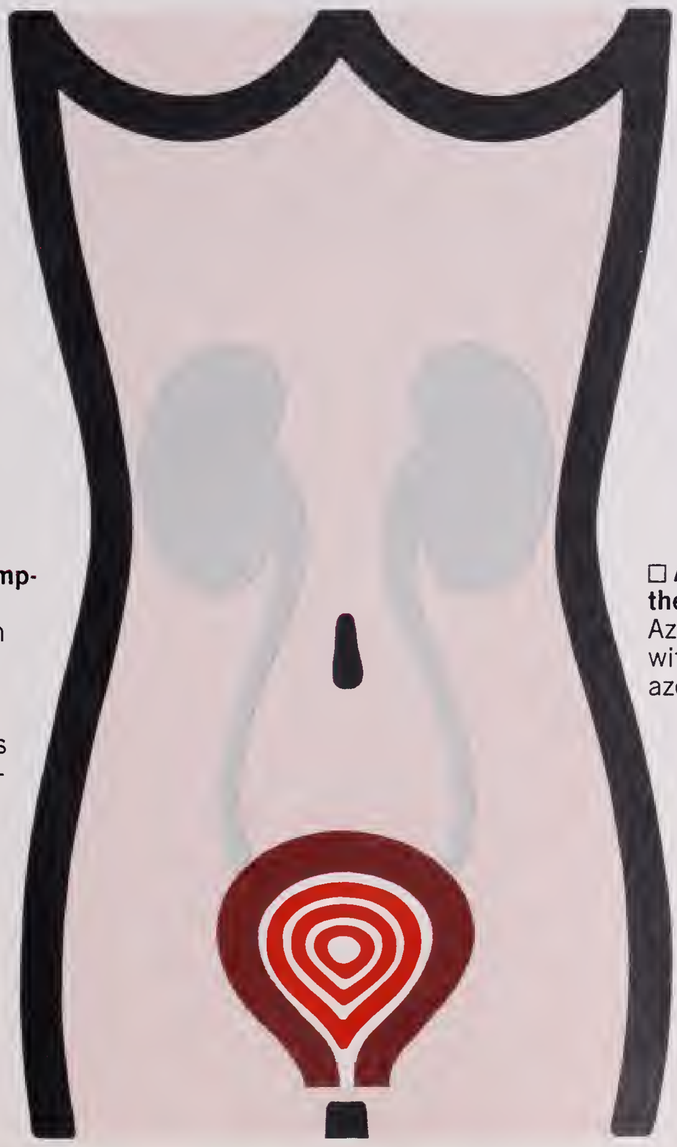
for the pain for the pathogens



☐ **Early relief of painful symptoms** such as burning and discomfort associated with urgency and frequency.

☐ **Effective control of susceptible pathogens** such as *E. coli*, *Klebsiella-Aerobacter*, *Staph. aureus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*.

☐ **Appropriate antibacterial therapy:** up to three days with Azo Gantanol, then 11 days with Gantanol® (sulfamethoxazole).

*nonobstructed; due to susceptible organisms

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TRIAMTERENE CONSERVES POTASSIUM WHILE HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE

FOR LONG-TERM CONTROL OF HYPERTENSION*

Serum K^+ and BUN should be checked periodically. (See Warnings Section.)

Before prescribing, see complete prescribing information in SK&F literature or *PDR*. The following is a brief summary.

*Warning
This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

*Indications: *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

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Medrol® 4 mg Dosepak*
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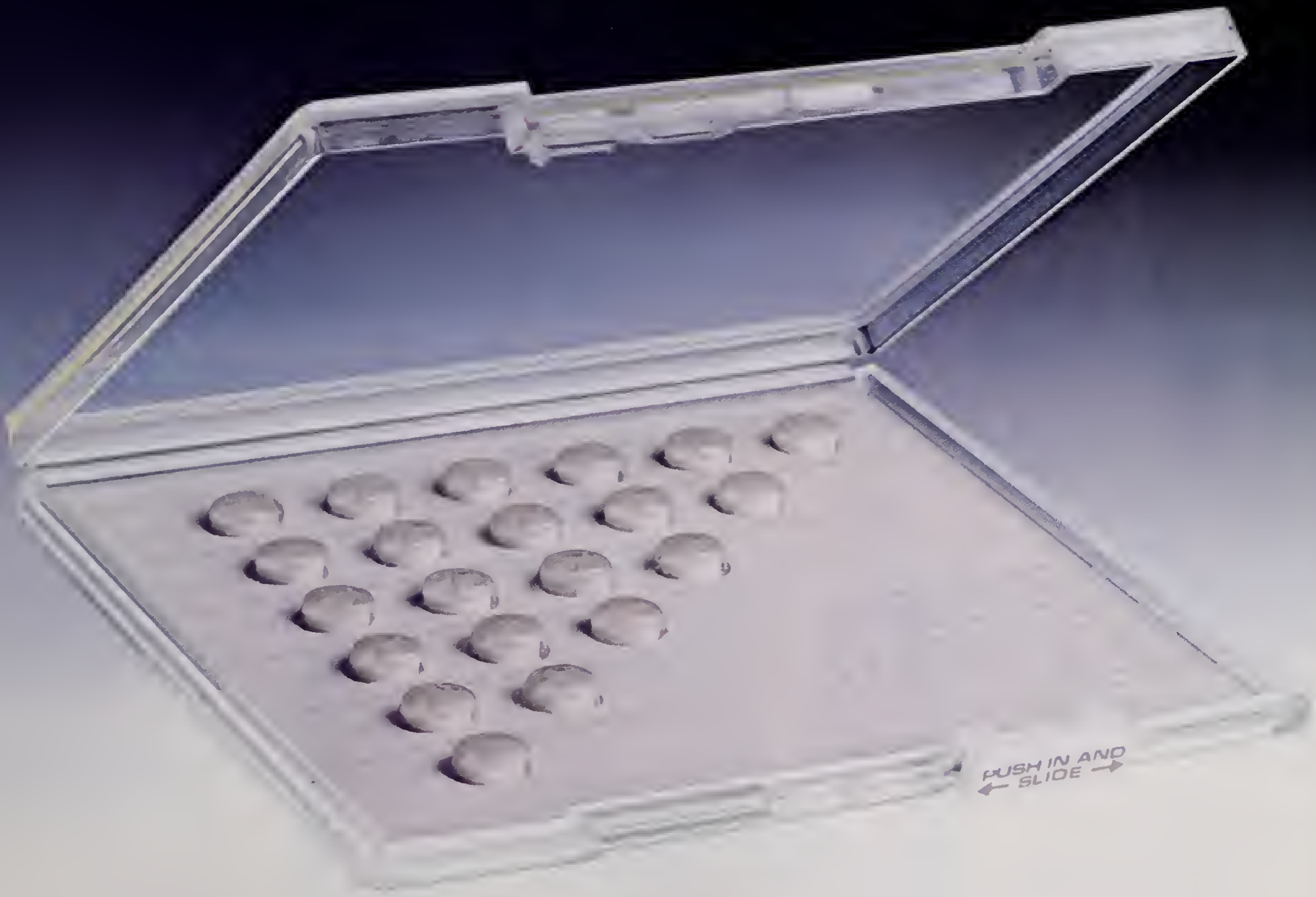
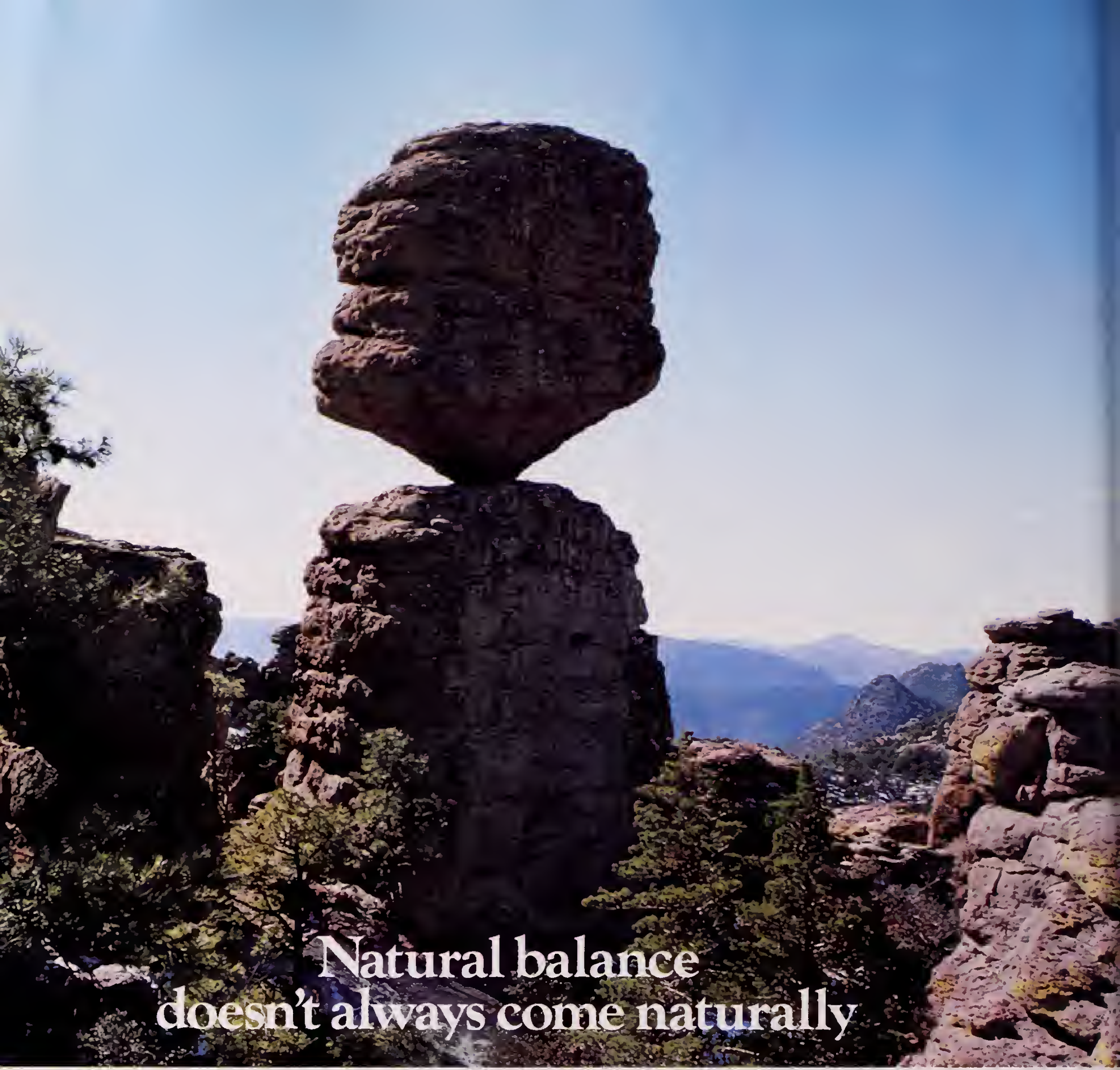
The explicit printed dosage instructions that accompany each Dosepak make it easy for the patient to understand and follow the dosage regimen.





Big Balanced Rock, Chiricahua Mountains, Arizona (approx 1,000 tons)

□ Found useful in the management of vertigo* associated with diseases affecting the vestibular system.
□ Can relieve nausea and vomiting often associated with vertigo.*
□ Usual adult dosage for Antivert/25 for vertigo:* one tablet t.i.d.
□ Also available as Antivert (meclizine HCl) 12.5 mg. scored tablets, for dosage convenience and flexibility.
□ Antivert/25 (meclizine HCl) 25 mg. *Chewable* Tablets for nausea, vomiting and dizziness associated with motion sickness.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences – National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

ROERIG Pfizer
A division of Pfizer Pharmaceuticals
New York, New York 10017

Antivert®/25
(meclizine HCl) 25 mg. Tablets
for vertigo*

When pain complicates acute cystitis*

Azo Gantanol®

Each tablet contains 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl.

for the pain for the pathogens

☐ **Early relief of painful symp-**
oms such as burning and
iscomfort associated with
rgency and frequency.

☐ **Effective control of sus-**
eptible pathogens such as
. coli, Klebsiella-Aerobac-
er, Staph. aureus, Proteus
irabilis and, less fre-
uently, *Proteus vulgaris.*

☐ **Appropriate antibacterial therapy:** up to three days with Azo Gantanol, then 11 days with Gantanol® (sulfamethoxazole).

*nonobstructed; due to
susceptible organisms

ROCHE

DYAZIDE® MAKES SENSE

Trademark

Each capsule contains 50 mg. of Dyrenium® (triamterene, SK&F) and 25 mg. of hydrochlorothiazide.

TRIAMTERENE CONSERVES POTASSIUM WHILE HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE

FOR LONG-TERM CONTROL OF HYPERTENSION*

Serum K+ and BUN should be checked periodically. (See Warnings Section.)

Before prescribing, see complete prescribing information in SK&F literature or *PDR*. The following is a brief summary.

> * **Warning**
> This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** *Edema.* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: **Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration.** Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, **check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently**—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

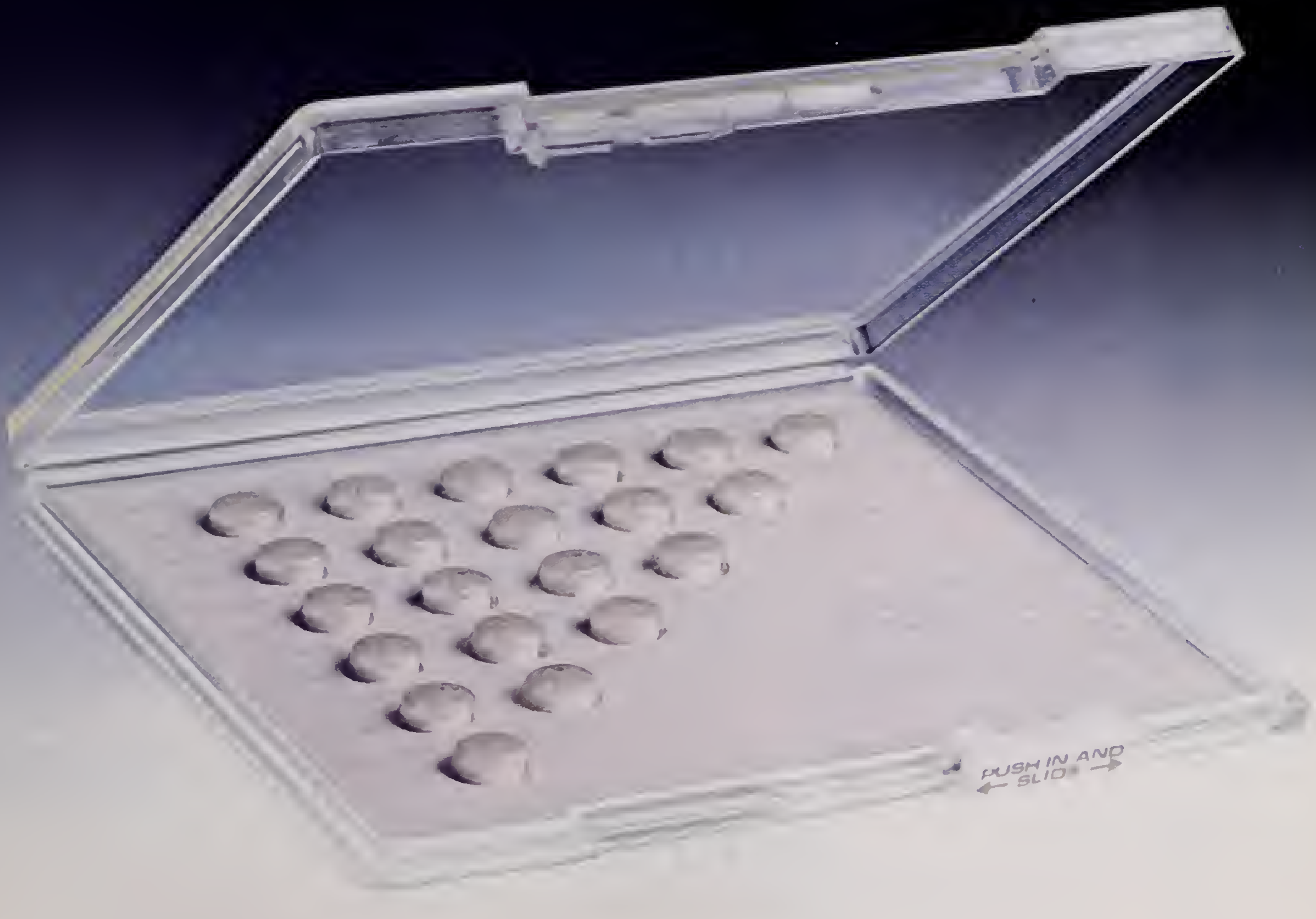
Supplied: Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

SK&F Co., Carolina, P.R. 00630
Subsidiary of SmithKline Corporation

Upjohn
The Upjohn Company, Kalamazoo, Michigan 49001

Medrol® 4 mg Dosepak*
methylprednisolone, Upjohn

The explicit printed dosage instructions that accompany each Dosepak make it easy for the patient to understand and follow the dosage regimen.



* Trademark

48 1 4

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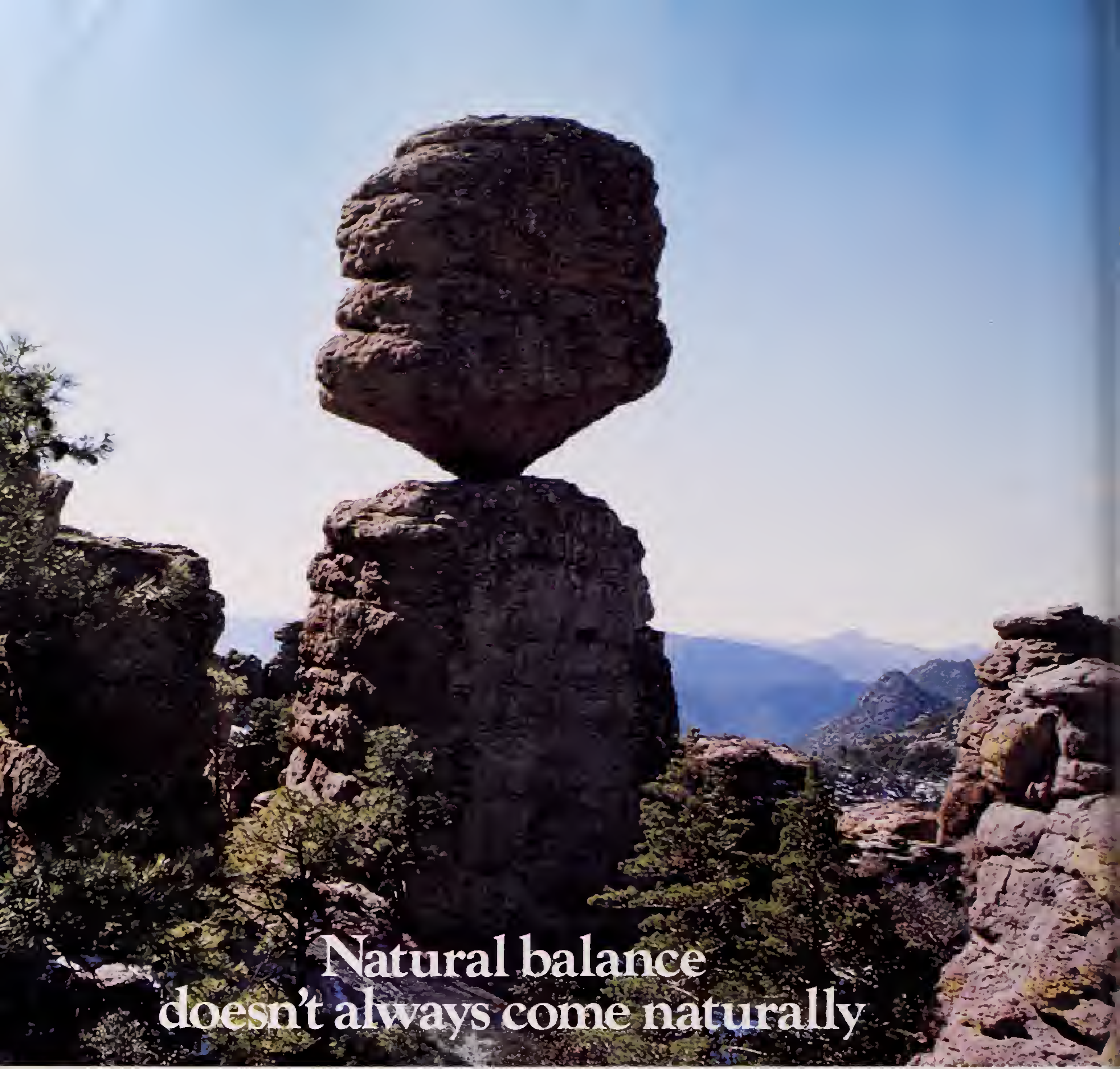


Big Balanced Rock, Chiricahua Mountains, Arizona (approx. 1,000 tons)

□ Found useful in the management of vertigo* associated with diseases affecting the vestibular system.

□ Can relieve nausea and vomiting often associated with vertigo.*

□ Usual adult dosage for Antivert/25 for vertigo:* one tablet t.i.d.

□ Also available as Antivert (meclizine HCl) 12.5 mg. scored tablets, for dosage convenience and flexibility.

□ Antivert/25 (meclizine HCl) 25 mg. *Chewable* Tablets for nausea, vomiting and dizziness associated with motion sickness.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences – National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective. Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of th teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestatio has produced cleft palate in the offspring. Limited studies using doses of over 100 mg kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patient should be warned of this possibility and cautioned against driving a car or operatin dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in childre have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurre vision have been reported.

More detailed professional information available on request.

ROERIG Pfize
A division of Pfizer Pharmaceutical
New York, New York 10017

Antivert®/25
(meclizine HCl) 25 mg. Tablets
for vertigo*

The Auxiliary

Pledge your support today to the . . .

University of Nebraska State Museum Health Galleries

Dear Doctor and Spouse:

There has been an increasing public concern with health problems and the desire for more relevant education in health related matters. In responding to this need, the House of Delegates of the Nebraska Medical Association adopted on October of 1970 the proposal to develop an organization entitled "Friends of Nebraska Health Museums." The purpose of this organization is to provide financial support for the development of a health galleries. The Auxiliary of the Nebraska Medical Association accepted the challenge to lead a significant fund drive to make the Health Galleries a major state educational resource.

The proposed Galleries promises to be one of the most outstanding and innovative health education centers in the country. As part of a Natural History Museum, located at the University of Nebraska State Museum, the Galleries will present human health as a continuing, successful adaptation to the environment. The exhibits will emphasize the structure and function of the healthy human organism, focusing on health as compared to disease, and will promote good health maintenance through a knowledge of the body functions.

Visitor participation, utilizing electronic and self-testing devices will help facilitate learning. Advisory groups will assure exhibit accuracy and wil continually reassess goals and educational impact. In addition, traveling exhibits are being planned to aid classroom teachers in their health education programs.

A major step toward the development of the Galleries was achieved on January 9, 1976, with the unveiling of the scale model of the proposed exhibits to the members of the medical community and the endorsement of this project by the University's Board of Regents. Since that time the model has been on display in several Nebraska communities. If the model has been on display in your community, we hope that you had the opportunity to familiarize yourself with the concept of the Galleries.

The total financing of this project will be accomplished by private funds. We (the auxiliary) are depending upon members of the medical community to help support this exciting educational project. If each of us makes a donation, the three-year goal of $450,000.00 will be reached and this outstanding resource will become a reality.

Please review the pledge form (next page), fill it out, and return it to us today. Contributions are tax deductible.

Your help is vital!

Sincerely,
Auxiliary to
The Nebraska Medical Association

As an investment in the health and knowledge of young people I/we give an initial gift of $________ for the development and maintenance of the U N Health Gallery

Make your check payable to: The University of Nebraska Foundation.

Mail to: NU Foundation, P.O. Box 30186, Lincoln, Nebraska 68588.

Name____

Address______________________________________

Here is my pledge:

I/we intend to give $________ over a three year period for the development of the Health Gallery.

☐ Please send reminders ☐ Annually ☐ Semi-annually ☐ Quarterly

---

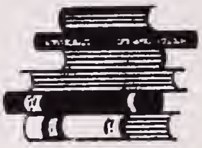
NAMED GIFTS

Individuals or organizations may wish to dedicate a particular area or exhibit in their name or as a memorial. Size of gifts to make this possible are:

ACKNOWLEDGMENTS

Name on Gallery	$150,000	Name on Patron Plaque	$1,000-$5,000
Name on Major Exhibit Area	$ 25,000-$65,000	Certificate of Appreciation	$ 100-$1,000
Name on Specific Exhibit	$ 5,000-$50,000	Recognition in Museum Notes	$ 10-$ 100

Books



Books received.

The healer's art; by Eric J. Cassell, M.D.; 240 pages; hard cover $8.95; published 1976 by J.B. Lippincott Co., N.Y.

The pure joy of making more money; by Donald M. Dible; 314 pages; hard cover $10.00; published 1976 by Entrepreneur Press, Santa Clara, California.

Books reviewed.

Surgical Forum — Gastric surgery, edited by Sir Rodney Smith; 168 pages; hard cover; published 1975 by Butterworths, London and Boston.

There are seven contributors, all F.R.C.S., six U.K. and one Africa. The text is divided into four chapters: The aetiology of gastric and duodenal ulceration; The selection of operations for gastric and duodenal ulcer; The metabolic consequences of peptic ulcer surgery; and Cancer of the stomach. There are references, and an index, and a few figures. It is a timely book, as about 35,000 gastrectomies were performed in England and Wales each year between 1945 and 1950; and since half a million people in Great Britain have had operations for peptic ulceration.

The book has all the features of British writing: the references are not as uniformly American as those in our books, and I suppose we contribute to this kind of nonsense on both sides of the Atlantic. The print is fine, but readable.

The literature that came with the book did not tell what it costs, but it is a small book, and the price cannot be much, and the book seems well worth the usual price for a book of its size.

—F.C.

Physician's handbook; by Marcus A, Krupp, M.D., Norman J. Sweet, M.D., Ernest Jawetz, M.D., Edward G. Biglieri, M.D., and Robert L. Roe, M.D.; 18th edition; limp cover, $8.00; 754 pages; published 1976 by Lange Medical Publications, Los Altos, California.

The Handbook was originally published in 1941, and apparently reappears every three years. It has been translated into Spanish, Italian, Portuguese, and Polish. There are 33 chapters, an appendix, and a good index. 754 pages is a lot for a handbook, and this is a little one; it's 10.8 by 17.5 cm (4¼ by 6 7/8") and 3 cm (1 1/8") thick. But it will fit into your whitecoat pocket, and you're getting a lot of pages for 8 dollars.

The print is good, there is a smattering of figures and tables, and the text is up-to-date. There is just about everything you need to know what with a good discussion of vitamins, genetics, laboratory procedures, and Pap smears. It is well written, and it is recommended.

—F.C.

In Memoriam

By medicine life may be prolong'd
yet death
Will seize the doctor too.
—Shakespeare

DR. MEYER BEBER

Doctor Meyer Beber died on February 8, 1976, at the age of seventy-six. Doctor Beber was born in Russia on December 27, 1899.

He was graduated from the University of Nebraska School of Medicine in 1933 and took his internship at St. Elizabeth's Hospital in Washington, D.C. Upon the completion of his internship in 1935, he became a voluntary staff member at Douglas County Hospital. He was named Medical Director of Douglas County Hospital in 1957. Subsequently, he was named Administrator of Douglas County Hospital and served in that capacity until his retirement in 1971.

Doctor Beber was awarded life membership in the Nebraska Medical Association in 1971.

He is survived by his widow, Lillian; sons, Doctor Charles and Doctor Bernard, both of Miami; one brother; two sisters; and four grandchildren.

Between Cases

Quote Unquote.

It shows a fine command of the English language to say nothing.

Anon.

A Sign I Saw.

Cancer cures smoking.

Maybe So.

An inference or a presumption not controverted should stand.

Famous Words, Section On Anesthesia.

Gentlemen, this is no humbug.

Warren.

This Yankee dodge, gentlemen, beats mesmerism hollow.

Liston.

Division Of Statistics.

Fireworks cause more accidents in Britain than in any other country in the world.

Quote Unquote.

Unlike other doctors, he always told his patients the truth.

Sevela: Legends from Invalid Street.

Words I Can Do Without.

Ilk, ruggedized, it is to be noted that, subreption, pervasive, in toto.

I Read It Somewhere.

An oops splenectomy.

Beautiful.

Department Of Definitions.

Has a yellowish color to it.

This means yellow.

At this juncture in time.

Means now.

Ekcetera. That's what somebody said; means and so on, I suppose.

Things I'm Tired Of.

He has tachycardia.
No pulse rate is given.

He is obese.
They didn't weigh him.

He is diaphoresing. I know horses sweat, men perspire, and ladies glow, but who diaphoreses?

The patient is cyanotic.

Cyanosis means bluish discoloration, especially when due to excessive concentration of reduced hemoglobin in the blood. Since we cannot tell what the blueness is due to, I think we ought to say the patient is blue.

Quote Unquote.

I have always found that women are frequently most incredulous when you tell them the truth.

H. E. Bates: The enchantress.

On People.

The world is divided into two groups: those who keep pencil and pad at the telephone and the ones who make you wait.

On Gerontology.

There are 3,500 people over 100 years old in the United States.

Quote Unquote.

Time is an illusion perpetrated by the manufacturers of space.

Anon.

On Decisions.

Why do you assume you have the right to decide for someone else?

Solzhenitsyn: Cancer ward.

What Does It Mean?

Thyroid: resembling a shield.
Cricoid : ring-shaped.

On Pain.

Those who do not feel pain seldom think that it is felt.

Samuel Johnson.

Quote Unquote.

Man cannot compare himself with any other creature; he is not a monkey, not a cow, not a tree.

Jung.

New from Lilly/Dista Research

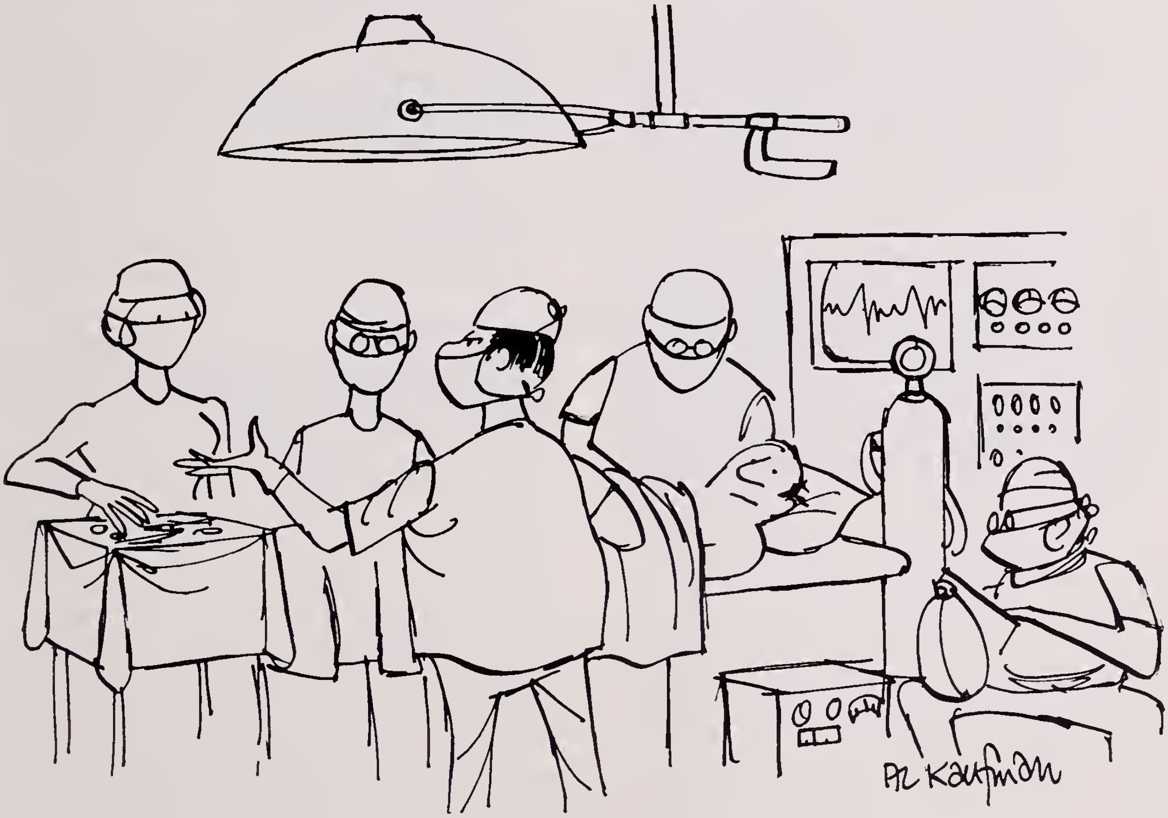
NALFON®
fenoprofen calcium
300-mg.* Pulvules®

DISTA
Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46206

Additional information available to the profession on request.

*Present as 345.9 mg. of the calcium salt of fenoprofen dihydrate equivalent to 300 mg. fenoprofen.

600091



"Hand me that little round handled thing with the gizmo on the end."

Down Memory Lane

1. After trying time and again to emulate some of my predecessors and write a philosophical paper of some kind with a ring of reform, a bit of medical history, an attack on the cults or an opinion of present day medical education and the alarming dearth of rural doctors, I gave up in despair. Consequently you are about to hear an ordinary everyday paper.

2. One reason why we so often remain unpaid is because our service is intangible. It is nothing that can be worn or eaten.

3. It seems reasonable that there is no other influence with such a binding community of interest, that we could possibly bring to bear upon the profession of the state, as the regular publication of a state journal, owned by, and devoted to the whole interest of, the profession of Nebraska.

4. She who knows says the doctors' wives are taking an increasingly greater interest in welfare and public health problems.

5. Attorneys and other professional men refer cases from one to another and, without moral or ethical error, divide the fee.

6. A clinicopathological presentation is a development of recent years in medical teaching.

7. The condition most commonly mistaken for trachoma is follicular conjunctivitis. A notable example of this mistake carried out on a large scale was revealed a few years ago in the report of a school-survey in Lincoln, Nebraska. From the figures given, the world was shocked to learn that about 50% of Lincoln school children were afflicted with trachoma.

8. Other journals can never take the place of our own *Nebraska State Medical Journal.*

9. I have never made a charge for treatment of nurses unless at their insistence.

Nebraska State Medical Journal.
June, 1926.

Welcome New Members

David L. Bolam, M.D.
Department of Pediatrics
University of Nebraska Medical Center
42nd & Dewey Avenue
Omaha, Nebraska 68105

Everett C. Madson, M.D.
434 Doctors Building
Omaha, Nebraska 68131

Patrick D. Mahoney, M.D.
2515 South 9th Street
Omaha, Nebraska 68124

Dean Thomson, M.D.
Syracuse
Nebraska 68446

Curtis T. Todd, M.D.
Department of Obstetrics
University of Nebraska Medical Center
42nd & Dewey Avenue
Omaha, Nebraska 68105

The Letter Box

Dear Frank:

Because of your well-known facility with words, I even went to the dictionary on reading your editorial on page 104 of the current issue of the Nebraska State Medical Journal.

According to the Webster's New Collegiate Dictionary, page 293, the word deciduous means: 1: falling off or shed seasonally or at a certain stage of development in the life cycle of leaves or teeth. 2: having deciduous parts as trees.

Now you know that I read what you write.

Sincerely,
Lee Stover, M.D.

Coming Meetings

CRIPPLED CHILDREN'S CLINICS —
June 19 — Grand Island, Nebraska Veterans Home
June 26 — Ogallala, Elks Lodge

AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 26 - July 1, 1976, Dallas, Texas.

NEBRASKA MEDICAL ASSOCIATION FALL SESSION — September 30 - October 1 & 2, 1976, Lincoln Hilton Hotel, Lincoln, Nebraska.

AMERICAN MEDICAL ASSOCIATION — 30th Clinical Convention, December 4-8, 1976, Philadelphia, Pennsylvania.

NEBRASKA MEDICAL ASSOCIATION ANNUAL SESSION — May 1-4, 1977, Holiday Inn, Omaha, Nebraska.

POSTGRADUATE EDUCATION FOR PEDIATRICIANS AND OBSTETRICIANS — The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate programs for pediatricians and obstetricians in the field of Maternal and Child Health and Family Planning. Program areas available at the present time include nine-month programs in Maternal and Child Health, in the Health of the School-Age Children and Youth, and Day Care and the Preschool Child. Twenty-one month programs in Care of Handicapped Children and Comprehensive Health Care, and a thirty-three month program in Perinatology are also available. These programs all lead to the degree of Master of Public Health, and tax-exempt Fellowship support is available. Applications are now being accepted for the group entering September, 1977. For information, write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

COLONOSCOPY TRAINING PROGRAM — The New York Society for Gastrointestinal Endoscopy supported by a Cancer Control Grant from the American Cancer Society, will now offer two week training programs in the techniques of fiberoptic colonoscopy for the detection and management of colonic neoplasm to qualified physicians and surgeons. The training program will be conducted at several institutions in New York City. Preference will be given to those physicians and surgeons who have had previous experience with fiberoptic endoscopy and who are from community where fiberoptic colonoscopy is not yet readily available. Please send curriculum vitae to: Paul Sherlock, M.D., Chief Gastroenterology Service, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, New York 10021.

ADVERTISERS' INDEX

B

Bemidji Clinic, Ltd. 6
Burroughs Wellcome Co. 9

D

Donley Medical Supply Co. 11
Duncan Aviation, Inc. 7

L

Eli Lilly and Company 14, 213

M

Medical Protective Co. (The) 11

N

Norfolk Printing Co., Inc. 8
North Central Medical Conference 5

P

Pharmaceutical Manufacturers Association 12, 13

R

Roche Laboratories 2, 3, 17, 18, 208, 208A
Roerig & Co. 208D

S

Smith Kline & French Laboratories 208B

U

Upjohn Company (The) 208C

Physicians' Classified

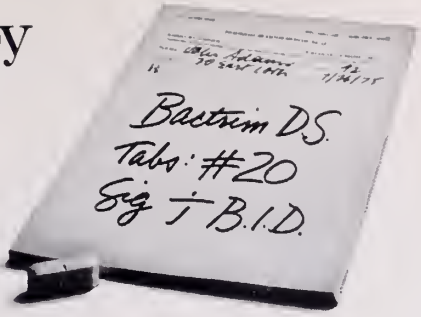
PHYSICIAN NEEDED — Part-time physician needed to practice in the Nebraska Penal Complex. Located in Lincoln, Nebraska, a clean, progressive community. Contact Gary Burger, Personnel Director, Dept. of Correctional Services, P. O. Box 94661, Lincoln, Nebraska 68509.

FAMILY PRACTITIONER WISHES ASSOCIATE who is Board-certified or Board-eligible in family practice to join family practice. Located in Waterloo, Iowa, a northeast Iowa community of 75,000. All records dictated on the Problem Orientated Medical Records System. Contact: Ronald R. Roth, M.D., 611 Black's Building, Waterloo, Iowa 50703.

CLINIC AVAILABLE — General practice in furnished clinic. County seat town, SW Nebraska. Three nursing homes in town, good territory. Equipped office available for dentist. Write Box 8, Beaver City, Nebraska 68926.

SURGEONS and FAMILY PRACTICE physicians should consider McCook, Nebraska, as an excellent area for relocation. McCook has a new, 56-bed accredited hospital that serves 15-20,000 people. McCook has 4 lakes within 60 miles for fishing and recreational purposes and is only 2 air hours from Denver and Omaha. For complete information, contact: Ken Noteboom, Administrator, Community Hospital, P.O. Box 310, McCook, Nebraska 69001.

l0-day Bactrim therapy outperforms 10-day ampicillin therapy.



n a multicenter, double-blind study of patients with hronic or frequently recurrent urinary tract infection, actrim 10-day therapy outperformed ampicillin 0-day therapy by 27.2%, when comparing patients vho maintained clear cultures for eight weeks. riterion for "clear culture" was 1000 or fewer organsms/ml of urine.

While adverse reactions noted in this study were nild (*e.g.*, vomiting, nausea, rash), more serious reacons can occur with these drugs. See manufacturer's roduct information for complete listing. Maintain dequate fluid intake; perform frequent CBC's and rinalyses with microscopic examination.

ote: Bactrim tablets were used in these clinical trials. Bioequivlency studies show one Bactrim DS double strength tablet is quivalent to two Bactrim tablets.

Bactrim™ DS
(160 mg trimethoprim and 800 mg sulfamethoxazole)
Double Strength tablets
Just 1 tablet B.I.D.

Bactrim™

(80 mg trimethoprim and 400 mg sulfamethoxazole)
2 tablets B.I.D.

or chronic or frequently recurrent cystitis and pyelonephritis due to susceptible organisms.

efore prescribing, please consult complete product information, a ummary of which follows:

ndications: Chronic urinary tract infections evidenced by persistent acteriuria (symptomatic or asymptomatic), frequently recurrent infecons (relapse or reinfection), or infections associated with urinary ract complications, such as obstruction. Primarily for cystitis, pyeloephritis or pyelitis due to susceptible strains of *E. coli, Klebsiella-nterobacter, Proteus mirabilis, Proteus vulgaris* and *Proteus norganii.*

VOTE: The increasing frequency of resistant organisms limits the useulness of antibacterials, especially in these urinary tract infections. he recommended quantitative disc susceptibility method (*Federal egister,* 37:20527-20529, 1972) may be used to estimate bacterial usceptibility to Bactrim. A laboratory report of "Susceptible to triethoprim-sulfamethoxazole" indicates an infection likely to respond Bactrim therapy. If infection is confined to the urine, "Intermedite susceptibility" also indicates a likely response. "Resistant" indiates that response is unlikely.

ontraindications: Hypersensitivity to trimethoprim or sulfonamides; regnancy; nursing mothers.

/arnings: Deaths from hypersensitivity reactions, agranulocytosis, plastic anemia and other blood dyscrasias have been associated ith sulfonamides. Experience with trimethoprim is much more mited but occasional interference with hematopoiesis has been reorted as well as an increased incidence of thrombopenia with purura in elderly patients on certain diuretics, primarily thiazides. ore throat, fever, pallor, purpura or jaundice may be early signs of erious blood disorders. Frequent CBC's are recommended; therapy hould be discontinued if a significantly reduced count of any formed lood element is noted. **Data are insufficient to recommend use in innts and children under 12.**

recautions: Use cautiously in patients with impaired renal or hepatic unction, possible folate deficiency, severe allergy or bronchial sthma. In patients with glucose-6-phosphate dehydrogenase defiency, hemolysis, frequently dose-related, may occur. During therpy, maintain adequate fluid intake and perform frequent urinalyses, ith careful microscopic examination, and renal function tests, parcularly where there is impaired renal function.

dverse Reactions: All major reactions to sulfonamides and trimethprim are included, even if not reported with Bactrim. *Blood dysrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, rombopenia, leukopenia, hemolytic anemia, purpura, hypoprorombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12. Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) every 24 hours
Below 15	Use not recommended

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10.

Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole; fruit-licorice flavored—bottles of 16 oz (1 pint).

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In a multicenter study of patients with chronic or frequently recurrent urinary tract infections

Bactrim was 27.2%* more effective than ampicillin in keeping patients infection-free for 8 weeks.†

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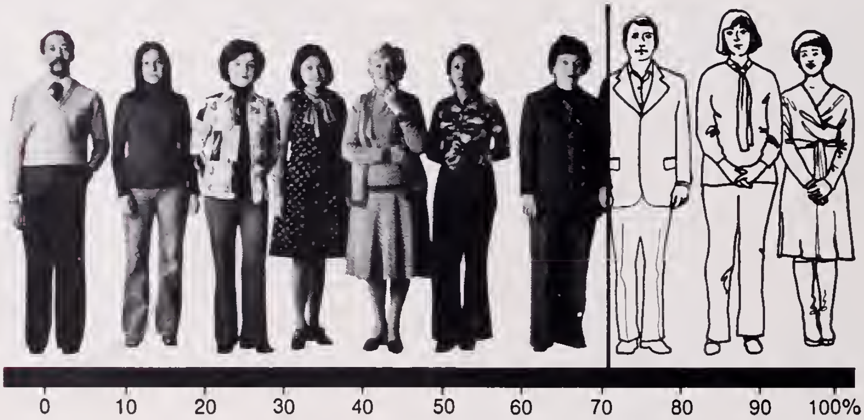
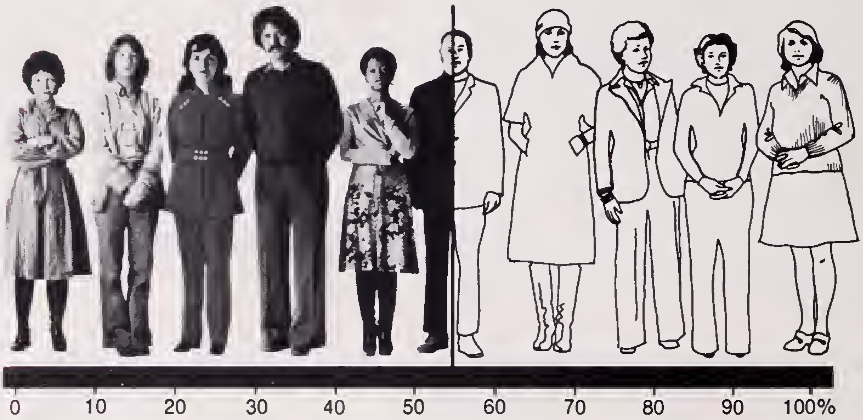


Bactrim–70.5% of 78 patients infection-free at 8 weeks.



ampicillin–55.4% of 74 patients infection-free at 8 weeks.

*This percentage is arrived at by the statistical method of dividing the difference between Bactrim and ampicillin results (15.1%) by the percent of ampicillin results (55.4%).

†Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey 07110

Bactrim™ DS

(160 mg trimethoprim and 800 mg sulfamethoxazole)

Double Strength tablets
Just 1 tablet B.I.D.

Note: Bactrim tablets were used in these clinical trials. Bioequivalency studies show one Bactrim DS double strength tablet is equivalent to two Bactrim tablets.

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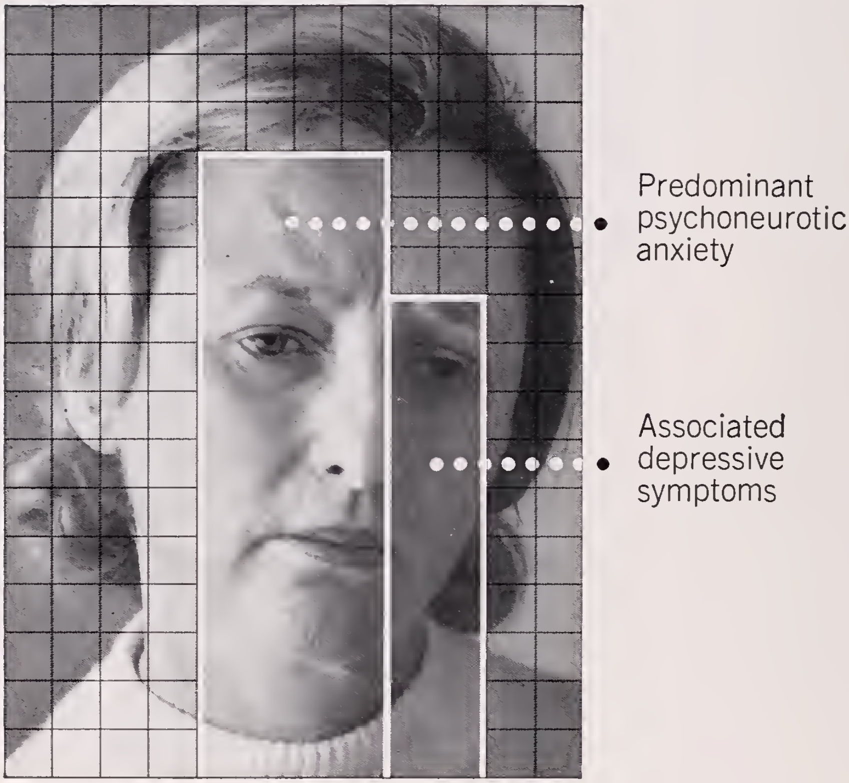
Predominant psychoneurotic anxiety
Associated depressive symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful

respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as the excessive anxiety is relieved, the depressive symptoms associated with it are also often relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.

Valium® (diazepam) Ⓘⓥ

2-mg, 5-mg, 10-mg scored tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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The Nebraska Medical Journal

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JULY 1976 VOL. 61, NO. 7

EDITORIALS —

Thoughts On Malpractice 215
No Change 215
Pearls of Wisdom 215
To Get A Billion People 216
Two Diseases At The Same Time 216
Bigger Is Not As Big 217

ORIGINAL ARTICLES —

Diabetic Neuropathy: Clinical Manifestations, Diagnosis, and Management 218
Fred Lovrien, M.D.
Joseph C. Shipp, M.D.

Congenital Chloridorrhea: Unexplained Growth Retardation 223
Jon A. Vanderhoof, M.D.
David L. Bolam, M.D.
Marvin E. Ament, M.D.

Agents Affecting Adrenergic Function In Antihypertensive Therapy — II 227
H. Frederick Dalske, Ph.D.
Gerald L. Wolf, M.D., Ph.D.

The Physician as a Nutrition Educator 230
Tama O. Krause, R.D., M.S.
Hazel M. Fox, R.D., Ph.D.

Behavior Therapy for Obesity: Another Fad or a New Set of Facts?, Part III 232
William T. McReynolds

One-Fourth of the Bicentennial Years Devoted to Treating the Sick 237
W. F. Novak, M.D., F.A.C.S., F.I.C.S.

Carbamazepine in Diabetes Insipidus 238
Chandra M. Tiwary, M.B.B.S, M.R.C.P., D.C.H.

DOWN MEMORY LANE 243

FEATURES —

President's Page 244
Welcome New Members 245
The Auxiliary 246

PRESIDENTIAL ADDRESS 247

IN MEMORIAM 250
Dr. Earl A. Connolly
Dr. Bert E. Morrow
Dr. John H. Murphy
Dr. Theodore A. Peterson
Dr. Josiah B. Redfield
Dr. E. Burkett Reed
Dr. Lynn E. Sharrar

BETWEEN CASES 251

NEBRASKA —

Picture Gallery 253
Our Medical Schools 254
State Organizations 7A

ALL THE STATES —

WashingtoNotes 255
Coming Meetings 258
National Organizations 6A

AROUND THE WORLD —

The Letter Box 259
Books 260
Medicinews 261

REPORTS —

Reports of Officers, Delegates and Committees 262
Report of Board of Councilors 274
Report of House of Delegates 275

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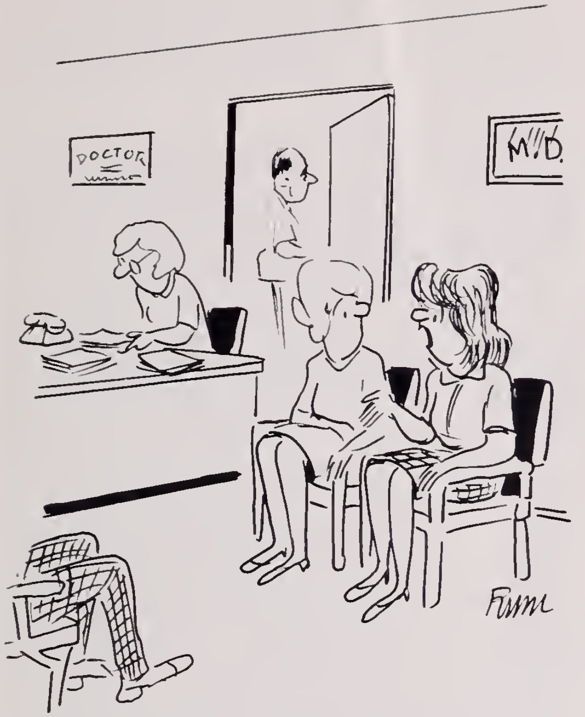

"I'm worried about the doctor shortage. We have only 16 doctors in town and I'm on the last one."

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When remedies are past, the griefs are ended
By seeing the worst, which late on hopes depended.
Othello.

* * *

Psychologic Adaptation to Jejunoileal Bypass for Morbid Obesity — H. S. Abram et al (Vanderbilt Univ School of Medicine, Nashville, TN 37232) J Nerv Ment Dis 162:151-157 (March) 1976.

Psychologic adaptation to jejunoileal bypass procedures in 34 morbidly obese patients was evaluated preoperatively and followed postoperatively for an average of 23 months. Preoperative emotional disturbances were mainly those of mild personality disorders with passive-aggressive, passive-dependent, and emotionally immature traits. Following discharge from the hospital, nine patients (or 24%) developed psychiatric difficulties, characterized by either increased neurotic symptoms and interpersonal problems, or the emergence of psychosis. Male patients and those with the greatest weight loss were statistically more likely to have psychiatric complications. The remaining patients expressed satisfaction with the operation, noted relief from the burden of dieting, experienced less excitement associated with eating, and felt more self-confident and hopeful.

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Combination Chemotherapy for Advanced Breast Cancer — G. P. Canellos et al (R. C. Young, National Cancer Institute, Bethesda, MD 20014) Ann Intern Med 84:389-392 (April) 1976.

Forty patients with metastatic breast cancer who had received no previous cytotoxic therapy were treated with a combination chemotherapy program CMF (P), which included methotrexate, 60 mg/sq m, and 5-fluorouracil, 700 mg/sq m, intravenously on the first and eighth days, in addition to cyclophosphamide, 100 mg/sq m, and prednisone, 40 mg/sq m, by mouth daily from the first to the 14th day of a 28-day cycle. Only two of 25 patients responded to hormonal therapy or endocrine ablation. Twenty-seven of the 40 patients (68%) had a complete response (eight patients) or partial response (19 patients). Lung, soft tissue, and nodal metastases were the most responsive sites. The median duration of antitumor response was eight months, with a median survival of 18 months for the responding group. The nonresponders had a median survival of four months. The toxicity was primarily hematologic and was especially severe in patients with functional liver impairment due to metastatic disease.

Pulmonary Complications of Sliding-Type Hiatus Hernia — J. P. Favre et al (Faculte de Medecine, Hopital du Bocage, Dijon, France) Ann Chir 30:215-218 (March) 1976.

In 40 patients with acute or chronic pulmonary disease, whereas assessment of the lungs proved negative, a hiatus hernia with gastroesophageal reflux was found. The reflux was treated medically in 17 patients and, surgically, in 23 patients. Recovery was noted from the lung symptoms which were chronic or in the absence of relapse during acute accidents. These lung complications are due to the repeated inhalation of gastric fluid, especially at night. In spite of the frequency of hiatus hernia and lung disease, it seems that this is a simple coincidence. The anatomic and clinical evidence proves this. Treatment of gastroesophageal reflux permits one to protect the patients from a relapse of these complications.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: In adults, urinary tract infections complicated by pain (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli, Klebsiella-Aerobacter, Staphylococcus aureus, Proteus mirabilis*, and, less frequently, *Proteus vulgaris*) in the absence of obstructive uropathy or foreign bodies. **Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides.** Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Children below age 12; sulfonamide hypersensitivity; pregnancy at term and during nursing period; because Azo Gantanol contains phenazopyridine hydrochloride it is contraindicated in glomerulonephritis, severe hepatitis, uremia, and pyelonephritis of pregnancy with G.I. disturbances.

Warnings: Safety during pregnancy not established. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, Stevens-Johnson syndrome, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *G.I. reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

Dosage: Azo Gantanol is intended for the acute, painful phase of urinary tract infections. *Usual adult dosage:* 2 Gm (4 tabs) initially, then 1 Gm (2 tabs) B.I.D. for up to 3 days. If pain persists, causes other than infection should be sought. After relief of pain has been obtained, continued treatment with Gantanol (sulfamethoxazole) may be considered.

NOTE: Patients should be told that the orange-red dye (phenazopyridine HCl) will color the urine.

Supplied: Tablets, red, film-coated, each containing 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl—bottles of 100 and 500.

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for the pain **for the pathogens**

☐ **Early relief of painful symptoms** such as burning and discomfort associated with urgency and frequency.

☐ **Effective control of susceptible pathogens** such as *E. coli, Klebsiella-Aerobacter, Staph. aureus, Proteus mirabilis* and, less frequently, *Proteus vulgaris.*

☐ **Appropriate antibacterial therapy:** up to three days with Azo Gantanol, then 11 days with Gantanol® (sulfamethoxazole).

*nonobstructed; due to susceptible organisms

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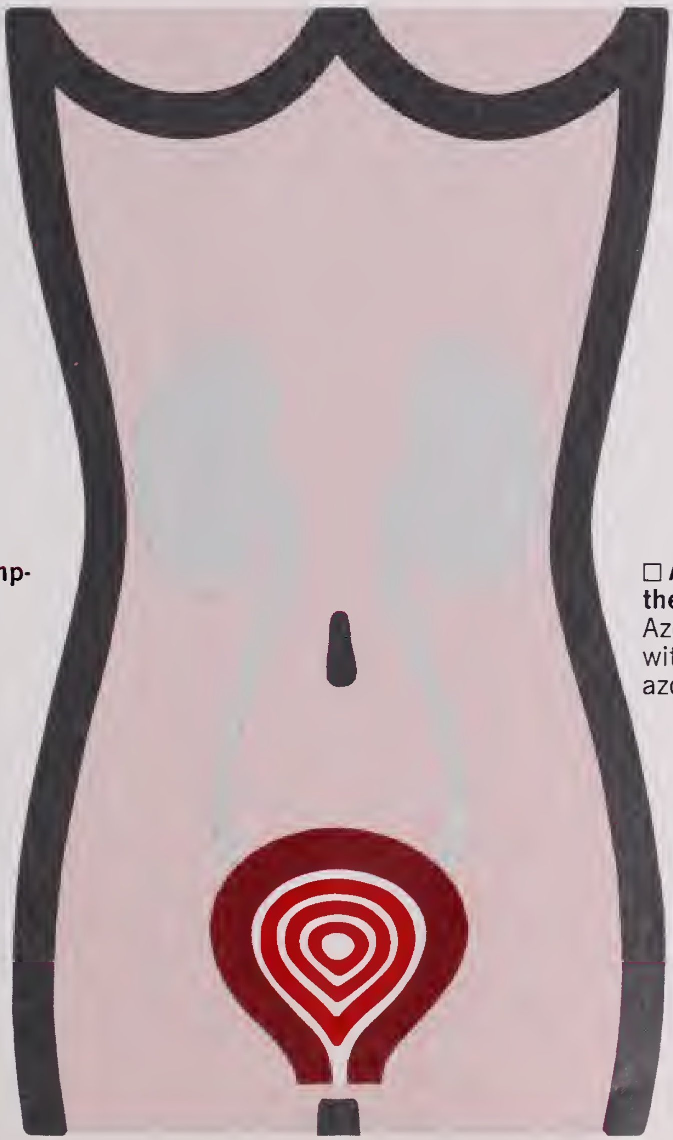

DYAZIDE® MAKES SENSE FOR LONG-TERM CONTROL OF HYPERTENSION*

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Each capsule contains 50 mg. of Dyrenium® (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.

Before prescribing, see complete prescribing information in SK&F literature or *PDR*. The following is a brief summary.

* Warning
This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: **Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired.** Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, **check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently**—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologi studies in cirrhotics with splenomegaly. Ant hypertensive effects may be enhanced in post sympathectomy patients. The following ma occur: hyperuricemia and gout, reversible n trogen retention, decreasing alkali reserve wit possible metabolic acidosis, hyperglycemia an glycosuria (diabetic insulin requirements may b altered), digitalis intoxication (in hypokalemia Use cautiously in surgical patients. Concomitan use with antihypertensive agents may result in a additive hypotensive effect. 'Dyazide' interfere with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness dizziness, headache, dry mouth; anaphylaxis rash, urticaria, photosensitivity, purpura, othe dermatological conditions; nausea and vomitin (may indicate electrolyte imbalance), diarrhea constipation, other gastrointestinal disturbances Necrotizing vasculitis, paresthesias, icterus, par creatitis, xanthopsia and, rarely, allergic pneu monitis have occurred with thiazides alone.

Supplied: Bottles of 100 capsules; in Single Uni Packages of 100 (intended for institutional us only).

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for vertigo*

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▪ **Relief of Nausea and Vomiting**—Antivert/25 can relieve the nausea and vomiting often associated with vertigo.*

▪ **Dosage for Vertigo***—The usual adult dosage for Antivert/25 is one tablet t.i.d.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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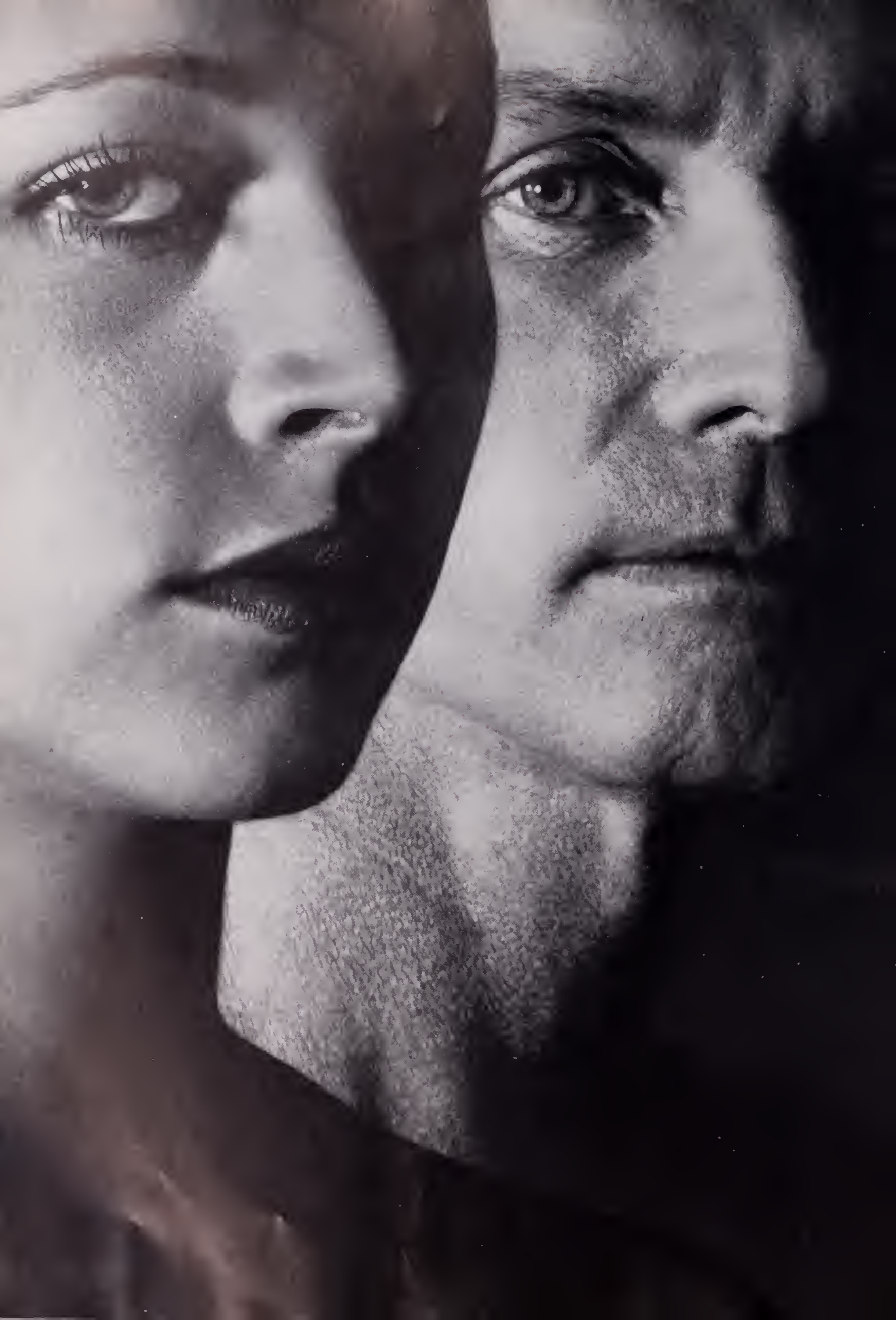
New York, New York 10017



Testing in Humans: Who, Where & When.

the weight of ethical opinion:

Few would disagree that the effectiveness and safety of any therapeutic agent or device must be determined through clinical research.

But now the *practice* of clinical research is under appraisal by Congress, the press and the general public. Who shall administer it? On whom are the products to be tested? Under what circumstances? And how shall results be evaluated and utilized?

The Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions which it submitted on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, as its official policy recommendations. Here are the essentials of PMA's current thinking in this vital area.

1. PMA supports the mandate and mission of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research and offers to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its service to the Commission.

2. PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact upon it of existing laws, regulations and procedures.

3. When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on drug and device innovation.

4. PMA proposes that an appropriately qualified medical organization be encouraged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent clinical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct nontherapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.

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THE NEBRASKA MEDICAL JOURNAL

THOUGHTS ON MALPRACTICE

Malpractice insurance can be bought by any physician in England for about $60 a year, I have read. Malpractice insurance premiums for physicians cost $20 to $25 per year in Sweden, regardless of specialty.

Malpractice insurance costs the doctor from something like one thousand dollars per year to 20 thousand dollars annually, *and more*, in the United States, and the rates depend on the specialty.

Sweden has a nationwide no-fault patient-injury compensation plan.

Swedish lawyers may not work on a contingency-fee basis; they charge by the hour. England and Canada, I think, do not use the contingency-fee system, either, and malpractice-insurance cost about $50 in Canada recently, the last time I looked it up.

$60 in England, $25 in Sweden, $50 in Canada. And $20,000 here.

We have the contingency-fee system.

—F.C.

NO CHANGE

Reports are funny things; they can be squirrely and devilish and downright mean, and sometimes they just laugh at you. Did the reporter know, but not write? It is like the lost child at the circus. He knows where *he* is; he thinks his mother is lost. And when someone dictates a report or writes a progress note, and another reads it a month later, the minds of the writer and the reader may not meet.

Two words that often block communication are *no change*; the examiner or the reader of the x-ray picture knows what he means, but when you read *no change*, you do not. No change from what? you wonder. You must hunt up the previous report, and probably take refuge in frustration or in guesswork.

Examination of two weeks ago showed thus and so, and there is no change at this time is better. And there is one more thing. It is disquieting to read that the patient was comfortable on March 20, but was bleeding on Thursday. And another little thing; I have seen a one-page report that had five doctors' names on it with four completely illegible signatures, till I could not tell who had examined the patient. Unreadable signatures are not amusing, but they go on; there is no change.

—F.C.

PEARLS OF WISDOM

It was one o'clock in the morning, and we were operating, and the patient was in very poor condition. I was giving the anesthetic, and I was working like mad, trying to bring him out of shock or from whatever equally horrible state he was in. At this point, the surgeon stopped operating, and he turned to me and spoke, and what is worse, I stopped for a thousandth of a second to listen, and this is what he said, and I will never forget it: Frank, do whatever you think you should do.

Things did not always go well in the operating room, especially in the middle of the night, because they brought me the lemons, and they saved these prizes for their midnight cases. And the surgeon would often ask me if I wanted him to slow down or to stop. The theory was two-fold. In the early days of anesthesia, technique and progress were largely governed by fear, because we were venturing into the unknown, and the anesthesia giver was in command when things were bad, and he would often request the surgeon to stop the operation.

But today, when the stomach has just been divided or when the brain has been exposed, you cannot stop operating. And my advice to the surgeon was always the same, not to stop, but to go ahead and to finish the operation as quickly as he could. It is not always a kindness to the patient to substitute a shorter and an inadequate procedure for the proper and the planned one because the anesthesiologist is fearful.

There are two more pearls of wisdom I want to share with you. Give plenty of oxygen and keep the blood pressure up is one; and be careful in these cases is the other, and I have never heard sillier advice. It means only that you may give little oxygen and let the blood pressure fall and you may be careless in other cases, and that the consultant knows nothing about anesthesia or about consulting.

One surgeon used to say to me, if we went any slower, we'd stop. Slowing down and stopping means keeping the patient on the operating table longer. The Red King's advice to Alice is marvelous. Alice asked, Where shall I begin? And the Red King said, Begin at the beginning; go on until you come to the end, then stop.

—F.C.

TO GET A BILLION PEOPLE

We have been talking about doubling the world population, but I like to think in billions; and our billion is a thousand million. When I was very young, there were two billion people in the world, soon there were three, and now there are four. We are doubling our population in something like 40 years now, but gaining a billion people is just as interesting and just as significant; and I think it is more easily understood.

How long does it take to gain a billion people in the world?

From 1830 to 1930, it took 100 years.
From 1880 to 1952, it took 72 years.
From 1900 to 1971, it took 71 years.
From 1960 to 1976, it took 16 years.
From 1992 to 2000, it will take 8 years.

How fast are we doubling the world population?

From 0 to 1650, it took 1650 years.
From 1650 to 1830, it took 180 years.
From 1720 to 1850, it took 130 years.
From 1800 to 1920, it took 120 years.
From 1830 to 1930, it took 100 years.
From 1880 to 1960, it took 80 years.
From 1920 to 1971, it took 51 years.
From 1960 to 2000, it will take 40 years.

If the birth rate is not being slowed down, three hundred thousand people are born every day; every second, there are two deaths in the world, and there are three births. That is why we grow so fast, and that is why it takes us only something like a dozen years now to gain a whole billion people.

—F.C.

TWO DISEASES AT THE SAME TIME

Now and then you run across an article about a patient who suffered from two different illnesses at the same time. I was not the most brilliant student in my medical class, and the only subject in which I remember doing well was diagnosis, and they must have had the wrong man. But I have never believed in the long arm of coincidence, and I was somehow brought up in the philosophy of differential diagnosis, with emphasis on *rule out*, and *eliminate* until only one possibility remains, in the style of Sherlock Holmes, who was invented by Arthur Conan Doyle, a physician. And Conan Doyle learned all of this from his teacher in medical school.

It never occurred to me to suppose that if the patient had appendicitis or pneumonia, he might have both. If you entertain these thoughts, you may never get to make a diagnosis at all. But such things happen, I suppose, as these articles point out. Still, this is the product of the laboratory with its battery of tests that tell the hapless physician that his unlucky patient has both diseases the doctor was considering, and that he could not rule out either one of them.

If you have a one percent chance of having gout, and one percent chance of having spondylolysis, why then you have only one chance in 10,000 of having both at once, and this is so for appendicitis and lobar pneumonia.

If your anesthetised patient is not doing well, if the pressure is low or if the blood is dark, you will find that some one thing has gone wrong. Laboratory tests may tell you of two lesions, or you may discover two during surgery, but for history, inspection, and palpation, one is enough.

—F.C.

BIGGER IS NOT AS BIG

If A is one and B is four, B is not four times larger than A; it is simply four times as large as A. To be four times larger than A, B would need to be five, not four. I do not know why *larger than* appears so often, and particularly why it is used improperly when it is written.

Then there are percentages, and when you go from one to two, you have had a 100 percent increase, which is the same as saying *more than*.

I do not suppose it matters very much what system you use, just so it is done correctly. Eight is not four times larger than two.

—F.C.

Diabetic Neuropathy: Clinical Manifestations, Diagnosis, and Management

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FEW disorders present to the general physician with such frequency as diabetes mellitus. Diabetes is well recognized for its role in cardiovascular disorders. Neurologic pathology on the basis of diabetes is less well appreciated.[1,2,3] An understanding of the pathophysiology of diabetic neuropathy can be the basis for a directed, logical, therapeutic approach to this problem.

Case Report: Mononeuritis Miltiplex, dominant in upper extremities.

The patient (UNMC #18 17 45) was an obese 54 year old white male seen on referral on September 23, 1974, with symptoms of bilateral, upper extremity paresthesias and muscle atrophy which had been progressive over several months. Diabetes mellitus was diagnosed at age 50; the patient refused to take insulin but did take an oral hypoglycemic agent without a change in diet. There was no known family history of diabetes. Alcohol intake had been minimal.

He was 6 feet tall and weighed 225 pounds. Blood pressure was 150/90. Other pertinent physical findings were limited to the neurological exam. Cranial nerves were normal. Vibratory and touch sensation were reduced in all extremities, and painful paresthesias of the upper extremities were induced by any pressure. Interosseous muscle atrophy of both hands, without fasciculations, was present. Ankle jerks were absent bilaterally and other deep tendon reflexes were hypoactive. No pathologic reflexes were present. Motor nerve conduction velocity was decreased, markedly, in the ulnar and median nerves bilaterally, and to a lesser degree in the nerves in the legs. Muscle biopsy showed primary nerve degeneration with secondary muscle atrophy.

An oral glucose tolerance test was diagnostic for diabetes (plasma glucose was 98 fasting, and 141 at one-half, 212 at one, 231 at two and 141 mg/dl at three hours after a 75 g glucose challenge). Numerous other blood and urine tests and x-rays were normal or non-contributory.

The composite findings were compatible with the mononeuritis multiplex form of diabetes neuropathy. Pain and paresthesias, of severity which prevented his working, were not reduced with diphenylhydantoin (Dilantin). Effective management of diabetes with a reduced caloric intake had, in 6 months, produced a weight loss of over 20 pounds, maintained plasma concentrations below 140 mg/dl and has been accompanied by a slow and steady reduction in symptoms, and a return to work.

Types and Anatomical Correlates

Rather than a clinical entity, diabetic neuropathy is a conglomerate of clinical entities based on nerve lesions in specified anatomical sites.[4] Five categories of neuropathy can result from diabetic nerve lesions in different regions of nervous system (Figure 1: Reproduced with permission of publisher* and author[4]).

1. *Diabetic radiculopathy.* This may be confused with a prolapsed disc. A myelogram may be required to differentiate diabetic radiculopathy from a herniated disc or tumor. Prognosis is good.

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2. *Mononeuropathies.* These result from damage to a large mixed nerve. This is particularly common in the sciatic, femoral, obturator, cranial nerves III and VI, and less commonly in the major nerve trunks of the upper extremities as in the case presentation. Pain is generally a more prominent feature than radiculopathies. Prognosis is good with disappearance of pain over varying time spans (usually months).

3. *Distal, symmetrical polyneuropathy.* This is the most common presentation. It is characterized by "stocking and glove" numbness, burning and pain. Nocturnal paresthesias and pain are frequent. This form may coexist with any of the other forms of neuropathies. The neurological exam may demonstrate minimal or no objective neurologic changes. Motor nerve conduction velocity measurements and mechanical sensory exam may be of help for diagnosis and for monitoring progression. The pathogenesis thought to be widespread nerve damage, secondary to a specific metabolic process. Prognosis is moderately good, but less predictable than for radiculopathies and mononeuropathies.

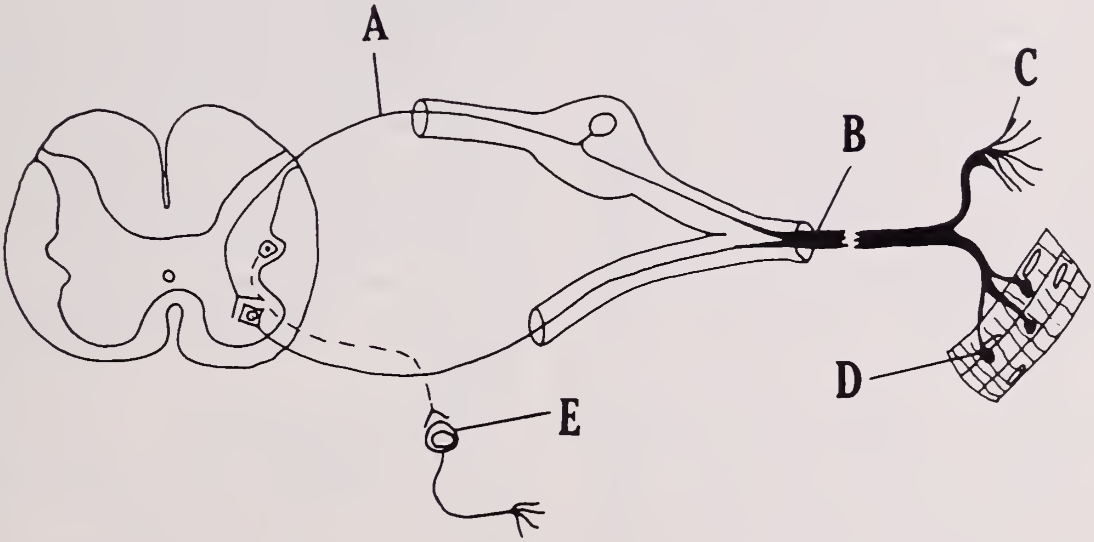
4. *Diabetic amyotrophy.* Characteristically, this syndrome is seen in elderly men with minimal glucose intolerance.[5] Manifestations include anterior thigh muscle weakness and wasting, fasciculations, weight loss, myalgias, and decreased sensation. Generally, marked improvement results in 18-24 months.

5. *Autonomic neuropathy.* This may present as postural hypotension, anhidrosis, delayed gastric emptying, diarrhea and/or constipation, impotence, incontinence or recurrent urinary tract infections. Another presentation can be "labile diabetes" resulting from variable gastric emptying and absorption. The diabetic etiology may not be considered until symptoms have been recalcitrant to multiple therapies. Renal damage secondary to urinary retention with infection, and metabolic lability due to upper gastrointestinal disorders, point to the ominous, though often occult, nature of this neuropathy.

Pathogenesis

Recent studies are beginning to clarify the two major factors responsible for diabetic neuropathy:

Figure 1



	Structure	Disorder	Etiology	Signs and Symptoms
A	Nerve root	Radiculopathy	Probably vascular	Pain and sensory loss in distribution of a dermatome.
B	Mixed spinal or cranial nerve	Mononeuropathy	Probably vascular	Pain, weakness, reflex change, sensory loss in distribution of mixed spinal or cranial nerve.
C	Nerve terminals	Polyneuropathy	Metabolic?	Glove and stocking sensory loss; mild peripheral weakness, absent reflex.
D	Nerve terminal? Muscle?	Diabetic amyotrophy	Unknown	Anterior thigh pain, proximal weakness of legs.
E	Sympathetic ganglion	Autonomic neuropathy	Unknown	Postural hypotension, anhydrosis, impotence, gastropathy, vesical atony.

1. *The vascular theory* holds that structural and functional changes of vasa nervorum result in nerve ischemia and infarction.[6] This view is in accord with the known predisposition of diabetics to vascular disease. The radiculopathy and mononeuropathy patterns are most compatible with a vascular basis.

2. *The metabolic theory* suggests that diffuse damage, particularly to Schwann cell sheaths, is a result of a specific, diabetic metabolic derangement.[7] In recent years the accumulation of sorbitol, with resultant injury, has been proposed as one mechanism by which this may occur:[8]

$$\text{D-Glucose} + \text{NADPH} + H^+ \xrightarrow[\text{reductase}]{\text{aldose}} \text{Sorbitol} + \text{NADP}$$

$$\text{Sorbitol} + \text{NAD} \xrightarrow[\text{dehydrogenase}]{\text{sorbitol}} \text{D-Fructose} + \text{NADH} + H^+$$

At blood glucose concentrations of 170-180 mg/dl, the enzyme aldose reductase is activated, sorbitol formation is enhanced and sorbitol accumulates in nerve sheaths. The concentration of this osmotically active substance in nerves has been correlated with decreased motor nerve conduction velocity.[7]

Diagnosis

Diabetic neuropathy is a diagnosis of exclusion. In the patient with known or recently detected diabetes it is essential to systematically rule out other organic causes.

For radiculopathy the primary exclusion is prolapsed intervertebral disc or localized pathology such as arthritic degeneration, malignant or metastatic disease. Mononeuritis multiplex involves the same differential as radiculopathy but also includes nonosseus tumors, trauma, local toxins, compression, and polyarteritis.

Peripheral, symmetric polyneuropathy generally, but not always, involves the feet first, and sensory loss is dominant. The differential includes toxins (heavy metals, drugs, environmental exposures), metabolic disorders (alcohol, uremia, vitamin deficiencies, porphyria, amyloidosis, and ironically, chronic hypoglycemia), blood disorders (leukemia, myeloma, macroglobulinemia), infectious or postinfectious processes (Guillain-Barre, mononucleosis, diphtheria, leprosy), and autoimmune disorders (polyarteritis, rheumatoid arthritis). Other rare types include genetically determined varieties.

Diabetic amyotrophy may present with a suggestive clinical picture and glucose intolerance; however, other abnormal and misleading laboratory results may be present[5] CSF protein may range up to 200 ml/dl, and muscle biopsy may be equivocal as to whether muscle or nerve pathology is primary. Prominent fasciculations may suggest primary neurologic disease, especially amyotrophic lateral sclerosis (ALS). Complicating the diagnosis is the fact that 80% of patients with ALS have glucose intolerance.

Motor nerve conduction tests, electromyography, and muscle biopsies contribute to the diagnosis through definition of the anatomical distribution of lesions, and by exclusion of some entities in the differential. These tests are indicated in patients with neuropathies in whom the diagnosis is uncertain.

Treatment

Treatment can be divided into three general categories:

1. *Specific treatment.* The most effective treatment for diabetic neuropathy is control of diabetes and in particular the hyperglycemia. Eliasson showed that decreased nerve conduction in experimental diabetes was correlated with the degree and duration of hyperglycemia.[7] Gabbay has provided a possible mechanism for this through the sorbitol pathway. He has demonstrated that normoglycemia after treatment can improve motor nerve conduction velocity.[9] (Figure 2) Furthermore, controlling the diabetic state may decrease atherogenesis and reduce the likelihood of vascular lesions affecting the nervous system.

On Control of Diabetes

In the individual with symptomatic diabetic neuropathy the following is recommended:

A. Hospitalization to clarify diagnosis. Bed rest for a short period is often helpful.

B. The diabetic state should be monitored with blood glucose determinations four, or more, times daily (fasting; and mid morning, mid afternoon and bedtime, before snacks.) A reasonable objective in most patients is to achieve glycemic fluctuations between 70 and 180 mg/dl. Urine tests for glycosuria do not provide adequate information for optimal regulation.

C. Diet is critical. For the obese noninsulin requiring, this is predominantly caloric reduction. For the insulin-dependent patient, there should be regular meals and midmorning, midafternoon, and bedtime snacks at the appropriate caloric level. For most adults who are on bed rest or inactive, 1500-1800 calories is adequate.

D. Insulin, when required, should be given two or more times daily, and adjusted carefully based on blood glucose concentrations. Lente plus regular before breakfast and Lente before supper are effective in many patients. Some diabetologists favor regular insulin before each meal.

E. Oral hypoglycemic agents, in our opinion, are not agents of choice. If diet is ineffective in controlling diabetes, insulin should be used.

F. Patient education is essential. Neuropathy is usually seen in patient with chronic nonregulation due, in large part, to a failure of patient education.

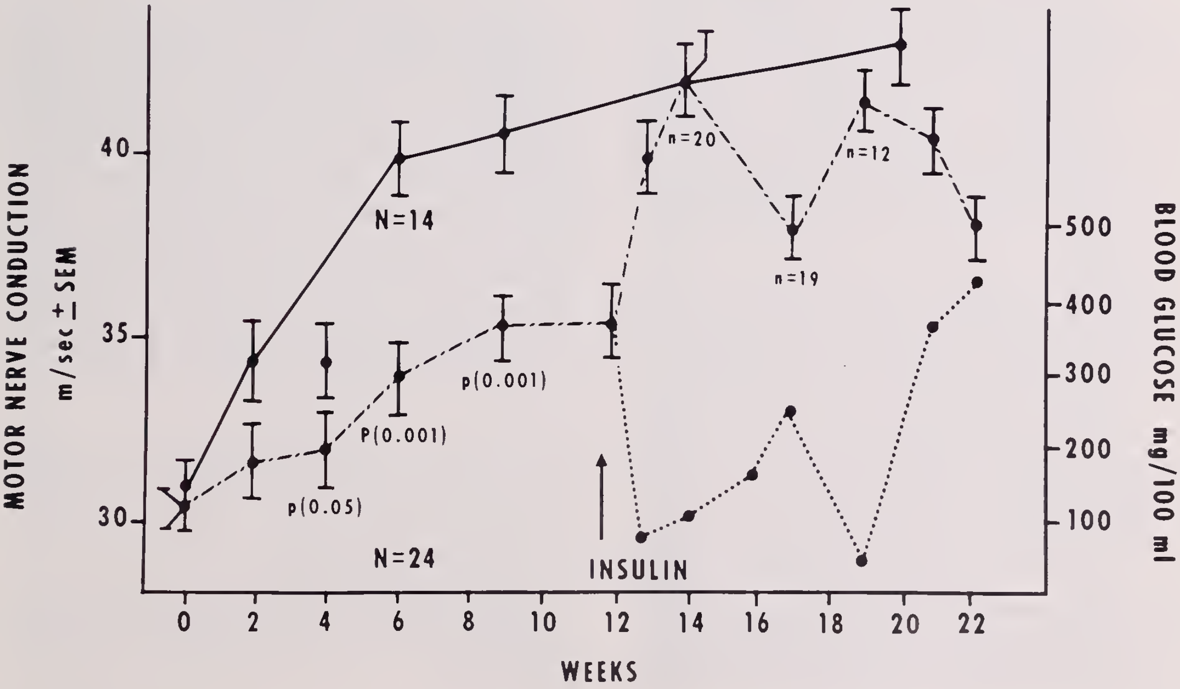
G. Physician attitude toward the established benefits of diabetic regulation is critical. He can assure the patient that the outlook is good for most forms of neuropathy.

2. *Empirical.* One of the earliest empirical approaches to treatment was the use of B-vitamins. This was based on the observation that deficiencies of B-vitamins were known to result in peripheral neuropathy. In recent years there have been attempts to demonstrate a widespread B-12 deficiency in diabetes.[10] Chlorophenoxyisobutrate (clofibrate), was tried on the premise that "sludging" induced neuropathy.[11] Neither approach has been reproducible nor as successful as control of diabetes.

3. *Symptomatic.* Theoretically, this ap-

Figure 2

MOTOR-NERVE CONDUCTION VELOCITY
IN NORMAL AND STREPTOZOTOCIN DIABETIC RATS



proach is aimed at decreasing membrane threshold to pain, and *does nothing to reverse the underlying pathology.*

A. Pain control.

Procaine,[12] diphenylhydantoin (Dilantin)[13] and carbamazepine (Tegretol)[14] have been advocated. With diphenylhydantoin (100 mg orally three times daily), and carbamezine (up to 200 mg orally three times daily), subjective improvement should be noted within several days in responsive patients. Small doses of imipramine (Tofranil; 10 mg orally three times daily) may be added for possible synergistic effects on nerve membranes. Critically controlled studies on the efficacy of these drugs are lacking. At most, these drugs should be used, with awareness of side effects, for short periods of time while control of diabetes is established.

B. Autonomic Neuropathies.

1) Urinary bladder atony. This can be established by postvoiding intravenous pyelography, or by demonstration of retention. Treatment is aimed at enhancing neural transmission. Bethanechol chloride (Urecholine; 10-30 mg orally three or four times daily) and other parasympathomimetic agents, are often helpful. This may be supplemented with regular voiding every four hours and the Crede maneuver (i.e., manual suprapubic pressure). If these measures fail, external urethral sphincterotomy results in improved urinary flow without untoward incontinence in a majority of cases.

2) Gastrointestinal. This may be manifest by diarrhea, constipation, bloating, and anorexia, nausea and vomiting. If diabetic diarrhea does not respond to more conservative measures (fluids, anticholenergic agents) broad spectrum antibiotics may result in clinical remission in many cases.[2] Gastrointestinal atony frequently responds best to an anticholinesterase such as ambenonium chloride (Mytelase chloride; 10-25 mg orally 30 minutes before meals and at bedtime).[15] Recently, metoclopramide has been suggested for use in gastroparesis diabeticorum,(15) but this agent is not available in this country.

3) Postural hypotension. Postural hypotension can be approached in several ways. Advising the patient to rise slowly, increasing sodium intake, TED socks, and ephedrine may be helpful, but generally are inadequate. The use of 9-α-fluorohydrocortisone (Florinef acetate) 0.1 mg orally each day is usually more effective, but this also is frequently inadequate. Hypertension, congestive failure and other cardiovascular problems may be complications of treatment.

4) New Research Directions. One interesting approach involves interruption of sorbitol formation. Experimentally, inhibitors of aldose reductase prevent sorbitol production and accumulation. In animals, hyperglycemia-induced cataracts and sorbitol accumulation in nerves can be blocked with these agents.[16] The future implications for clinical medicine are not known. The approach, at best, does not seem as rational as controlling diabetes.

Summary

Diabetic neuropathy is frequent in the known diabetic and may be the presenting feature. The neurological manifestations depend upon the anatomic site involved. Its occurrence relates to the diabetic state with hyperglycemia and vascular defects implicated. Diagnosis can be established by the clinical setting, exclusion of other causes and specific neurological and muscle testing. A good therapeutic response can be expected with effective diabetic regulation. Suggested symptomatic measures are discussed.

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Congenital Chloridorrhea: Unexplained Growth Retardation

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CONGENITAL chloridorrhea is a rare inheritable disorder of electrolyte transport across the ileum and colon. Since the original description by Gamble[1] and Darrow,[2] 27 cases have been reported. The basic abnormality is considered to be malabsorption[3] or active secretion[4] of chloride into the ileum and colon. Coupled with chloride loss is increased bicarbonate absorption. Osmotic diarrhea from increased luminal chloride content results in chronic hypovolemia and secondary hyperaldosteronism.[5] Urinary chloride is therefore low, and urinary potassium is high.

These children present initially with polyhydramnios, prematurity, and neonatal jaundice. Intractable watery diarrhea is often present from birth or develops within the first few weeks of life. Hypokalemia, hypochloremia, and alkalosis are severe. Patients with congenital chloridorrhea require a daily oral supplement of potassium chloride to maintain electrolyte and fluid balance. Growth retardation has been noted in many of these children, usually for the first two to four years of life. The purpose of this report is to document the clinical course of another patient with congenital chloridorrhea and to show that malabsorption of nutrients is not responsible for growth retardation.

Case Report:

K.B., a 2200 g. male, was the product of a 36 week gestation; pregnancy was complicated by polyhydramnios. Mild neonatal jaundice occurred. The patient was discharged at 11 days of age weighing 2200 g. Initially he had two to three soft or liquid stools per day, and by two months of age the frequency increased to five to ten per day. Weight gain was normal for the first three months (2.2 to 4.8 kg) (Figure 1). Numerous formula changes did not affect the diarrhea. After age four months, the patient began losing weight. He was hospitalized at five months because of growth failure. He weighed 4.3 kg (less than the third percentile for a five month old), had delayed psychomotor development, and appeared malnourished. There was no family history of diarrheal disease.

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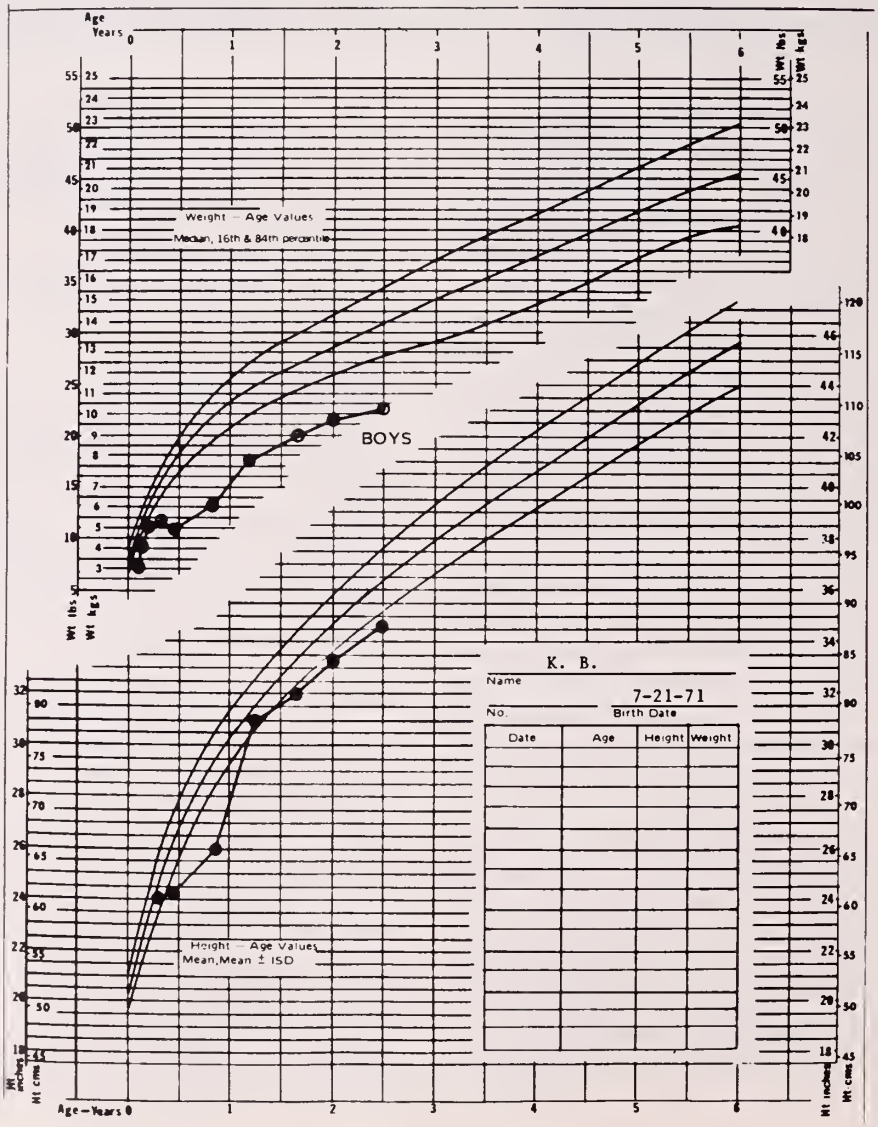
At admission, serum sodium was 137 mEq/L, potassium 2.6 mEq/L, chloride 68 mEq/L, and pH 7.65. Stool electrolytes revealed a sodium of 91 mEq/L, potassium 50 mEq/L, and chloride that ranged from 104-144 mEq/L. Sweat chloride was normal. Lactose and glucose tolerance tests both showed greater than 40 mg% rise in blood glucose during the first hour. Upper and lower gastrointestinal and small bowel series were normal. Small bowel biopsy showed normal mucosa. Renal biopsy showed hypercellular glomeruli with endothelio-mesangial proliferation and capillary narrowing. The juxtaglomerular apparatus was normal, and focal calcification was seen throughout the medullary area. Electron microscopy confirmed mesangial proliferation.

After a period of fluid stabilization and parenteral hyperalimentation, the patient was discharged on a regular diet supplemented with 60 to 80 mEq of potassium chloride daily given in the form of USP potassium chloride crystals dissolved in milk or juice.

During the following two years, hospitalization was necessary four times for hypokalemia and alkalosis associated with acute illness. Patient was anorectic and refused his oral medication during these illnesses and frequently when well. A feeding gastrostomy was placed at one year of age to

Figure 1



circumvent this problem, but was closed 6 months later because patient began to take his oral potassium chloride supplement. Patient approached the normal range for height at age 2 (10th percentile), but weight remained below the third percentile (Figure 1). His psychomotor development was normal. Both parents were within one standard deviation of normal adult height and weight and small children were uncommon among family members.

At two years, eight months of age, the patient was readmitted for evaluation of slow weight gain (Figure 1). Serum electrolytes were: sodium 142 mEq/L, potassium 5.0 mEq/L, chloride 106 mEq/L, CO_2 19 mEq/L, and pH 7.45. Urinary electrolytes on three separate 24 hr samples were: sodium 31, 15 and 7 mEq/L, potassium 124, 174, and 138 mEq/L and chloride 26, 47, and 72 mEq/L. Stool electrolytes on three determinations were as follows: Sodium 52, 62, and 64 mEq/L (N = 40 mEq/L); potassium 130, 40, and 64 mEq/L (N = 90 mEq/L; chloride 283, 154, and 172 mEq/L (N = 15 mEq/L); and fecal pH 5.0, 5.0, and 8.0 (N = 5.5). Total serum protein was 7.4 gm%, cholesterol 180 mg%, fasting blood glucose 105 mg%, BUN 10 mg%, uric acid 3.6 mg%, creatinine 0.5 mg%, bilirubin 0.5 mg%, alkaline phosphatase 255 I.U. (N = approx. 70-250 I.U.); SGOT 35 I.U. (normal up to 20 I.U.). Serum 8 a.m. plasma cortisol was 35 and 19 mg% (N = 6-27 mg%) on two occasions; 4 p.m. value was 15.5 mg%. Serum cholesterol was 176 mg% (N = 150-275 mg%). Triglycerides 70 mg% ($N < 120$ mg%). Prothrombin time was normal. Plasma renin was 6.9 mg/ml/hr. ($N < 3.6$ mg/ml/hr). Immunoelectrophoresis was normal. Vitamin A absorption showed an increase from 17 to 35 mg% after receiving 5,000 units/kg of white cod liver oil, normal value being a 100% increase in serum level. Caloric intake varied from 14 to 64 Cal/kg/day and averaged 35 Cal/kg/day. Normal caloric intake for a two year old male is 80—100 Cal/kg/day. Fecal fat excretion was 0.3 gm/24 hrs. and coefficient of fat absorption was 98% (N is greater than 95%). Repeat 3 day calorie count done in the home under normal environmental conditions was 110 Cal/kg/day. Bone age was 2 years (i.e., 2 standard deviations below the chronological age). Intestinal transit time was 9 hours and 11 hours on two determinations using a charcoal marker. Thyroxin level was 9.5 mg% (N = 5.4 — 13 mg%). T3 resin uptake was 26% (N = 25-35%). Growth hormone level was not evaluated because the patient's height was not consistent with growth hormone deficiency and because the upper to lower segment ratio was 1.4, the normal value for the patient's age.

Discussion

Congenital chloridorrhea is characterized by: 1) watery diarrhea from birth or early infancy; 2) hypochloremia, hypokalemia and alkalosis; and 3) increased fecal chloride excretion. Our patient is typical of previously reported cases. We, as well as others, have documented poor growth in this disease (Figure 1) during the first two years of life. Perheentupa et al[5] described poor growth in their series of eight patients. After that, normal growth was observed. Four other cases of growth failure in congenital chloridorrhea have been described. All had normal fat absorption and all but one had normal disaccharide tolerance tests. Growth failure remains unexplained in all cases.[6-9] A thirty-one-year-old adult was recently described by Gordon and Levitan.[10] He had poor weight gain until the fourth year of life, but became obese by early adolescence. Hyperuricemia, proteinuria, and hyperlipidemia were later complications in this patient; none of these are present in our patient.

Poor growth and malabsorption were investigated in our patient. Malabsorption of carbohydrates was not present. Vitamin A, a fat soluble vitamin was well absorbed. This is consistent with adequate fat absorption. Because of decreased caloric intake during hospitalization, the validity of the coefficient of absorption of fat as a true representation of lipid absorption is questionable. Decreased stool pH was most likely due to excess bicarbonate absorption rather than carbohydrate malabsorption. Normal thyroid function, cortisol production, and upper to lower segment ratio are evidence against an endocrine basis for growth retardation. Although the patient's calorie count in the hospital was quite low, a careful measurement of dietary intake in the home was normal and probably represents more accurately the patient's normal nutritional status. He had no evidence of neurological disease. Since this child was in good electrolyte balance after initial hospitalization, electrolyte imbalance or alkalosis should not be considered the cause of slow weight gain. Chronic hypovolemia is thought to occur in this disease[5] and the effect of this on growth is not known. Normal sweat chloride indicates that sodium chloride secretion in sweat is not abnormal in this disease, and that the mechanism of secretion is not related to the chloride-bicarbonate exchange in the ileum.

The cause of the poor weight gain in this patient and others affected by congenital chloridorrhea remains undetermined. It is not due to malabsorption of nutrients, and is a transient phenomenon. Dietary restrictions made on the assumption that malabsorption of nutrients is at fault are not appropriate in the treatment of this disease, unless the patient is found to have some digestive or absorptive abnormality.[7] On the contrary, making the diet more specialized and less palatable is likely to decrease intake and adversely affect the growth process.

Summary

The 28th case of congenital chloridorrhea is reported. Growth failure was investigated and abnormalities in digestion, absorption, and endocrinologic function could not be found. The cause of growth failure remains undetermined.

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Agents Affecting Adrenergic Function In Antihypertensive Therapy — II*

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and

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Guanethidine

GUANETHIDINE is the most potent oral agent available in the United States for the treatment of hypertension. It shares with reserpine a dual effect at the adrenergic neuron — depletion of norepinephrine from the neuronal storage granules and blockade of the granular reuptake mechanism. In addition, however, guanethidine inhibits the release of norepinephrine normally caused by nerve stimulation, an effect seen before any depletion of the transmitter can be demonstrated, and also blocks the uptake of norepinephrine at the neuronal membrane (Figures 1 and 2).

Thus, when compared to the rauwolfia alkaloids, guanethidine produces a much more complete sympathetic block. After a transient increase in blood pressure, due to the initial release of norepinephrine, total peripheral resistance declines markedly because venous, as well as arteriolar, tone is affected. Cardiac output falls, due in part to venous pooling, but also to myocardial catecholamine depletion, which leads to bradycardia and a depression of myocardial contractility. Sympathetic reflex adjustments are greatly reduced; postural hypotension is common, and may be severe.

Guanethidine's most important side effect, postural hypotension, is an extension of its pharmacologic action. It is especially prominent when the patient arises in the morning, owing to the redistribution of body fluids in the supine position overnight. Other side effects are related to the parasympathetic dominance caused by guanethidine's sympatholytic action. Diarrhea is common, and GI secretions may be augmented. Inability to ejaculate may occur in up to 30% of male patients, leading to poor compliance unless a clear explanation is given in advance. Many side effects related to guanethidine usage may be ameliorated with parasympatholytic agents or a reduction in guanethidine dosage. Fatigue is common, but unlike reserpine, guanethidine does *not* cross the blood-brain barrier and has no sedative properties.

Because guanethidine produces a more complete denervation sensitivity than reserpine, it is contraindicated in pheochromocytoma and in patients where monoamine oxidase inhibitors are prescribed. In addition, because it acts at the neuronal membrane, guanethidine is subject to drug interactions with other agents whose sites of action are similar. These include amphetamines, cocaine and the tricyclic antidepressants. The sudden reappearance of hypertension should suggest drug interaction, omitted doses, or fluid accumulation; the latter is common and requires concomitant diuretic therapy. The use of reserpine and guanethidine together is illogical, since they share several common sites of action within the adrenergic neuron.

Guanethidine is indicated, almost always in combination with other agents, in most severe and malignant forms of hypertension. Like reserpine, guanethidine has a delayed onset of action and a prolonged effect, and need be given only once daily. However, the effective dose range of guanethidine varies widely, requiring titration of each patient with small incremental additions until optimum control is achieved. It is imperative to make frequent adjustments of dosage to maintain optimum control. Care should be used if propranolol is added to the regimen, since both drugs depress myocardial contractility, and can cause congestive heart failure when used in combination. Similarly, guanethidine must be used with caution in pre-existing cardiac failure. Caution is also indicated in conditions of renal, cerebral or coronary insufficiency, since blood flow may be seriously compromised to these organs during periods of postural hypotension.

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Because of the steep dose-response curve that exists for guanethidine, dose titration often presents a problem. Each day the body eliminates a fraction of the total guanethidine present. Thus, excretion patterns are similar to digoxin, and a loading dose can be used to quickly achieve effective blood levels. When a patient's pressure elevations are severe and/or symptomatic, there is not time to gingerly approach the optimum dose over several weeks. This patient should be hospitalized and diuretic therapy initiated. A loading dose of guanethidine, 80 mg orally,

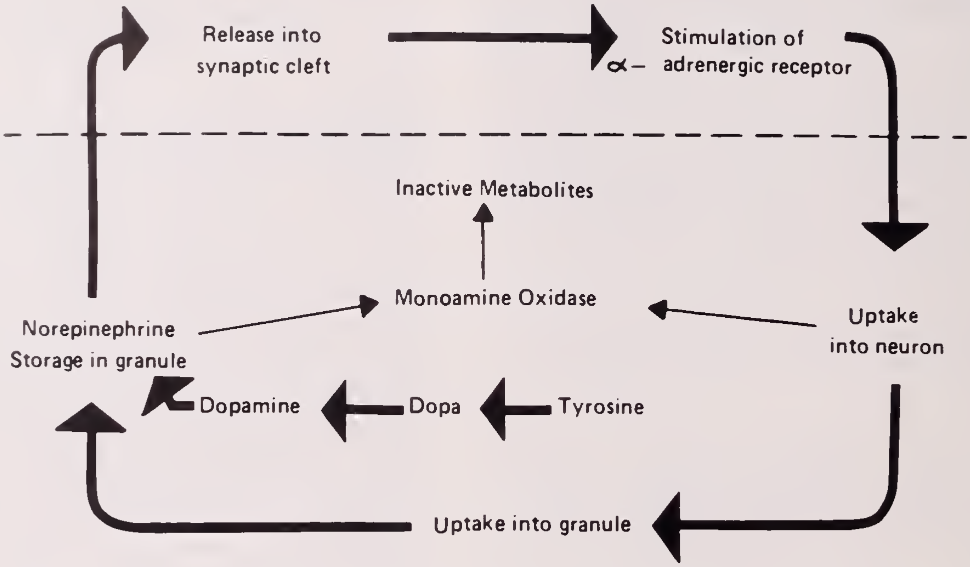

Figure 1. The normal sequence of events during neurochemical transmission at the adrenergic neuron. Norepinephrine is synthesized from tyrosine and bound in the storage granules. After being released to activate alpha receptors, the transmitter is returned to the storage granules by two separate uptake mechanisms. Any unbound norepinephrine in the cytoplasm is metabolized by monoamine oxidase (MAO). The broken line delineates extraneuronal (above) from intraneuronal events. Relative importance of the various pathways is indicated by width of the arrows.

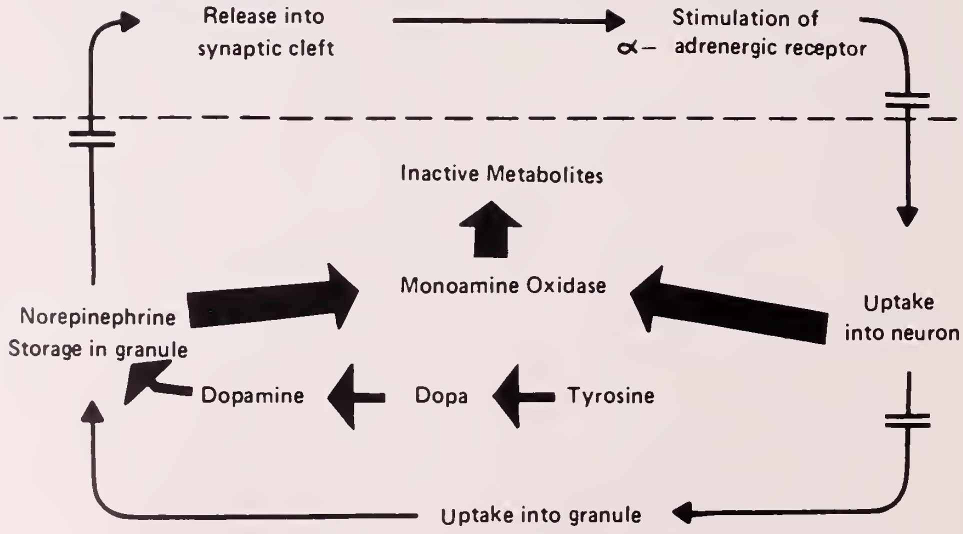

Figure 2. The effect of guanethidine on adrenergic transmission. This compound blocks uptake mechanisms and also inhibits the release of norepinephrine caused by nerve stimulation. MAO action leads to an increase in inactive metabolites.

can be administered, then 25 mg of guanethidine given orally at 8 hour intervals until control is achieved. The loading dose should be avoided in out-patient therapy. In these cases, the initial dose is 10 mg daily. This dose can then be incremented at weekly intervals, for the maximum effect at each dose level takes about 6 days to develop.

Despite the titration and side effect problems, and the greater amount of patient education that is required, many patients tolerate guanethidine surprisingly well. For some, it is the only effective drug available.

The very broad range of optimum dose in the usual hypertensive population is depicted by the shaded portion of Figure 3. Our prescription survey revealed that more than half of the guanethidine prescriptions were for a total dose of 10 mg/day or less. With such a powerful drug, one hesitates to use doses that have been excessive in other patients. Unfortunately, there is no scientific way to predict which patients will respond to the low dose and which will eventually respond to weekly increments in dose by titration. Many experts recommend obtaining a standing blood pressure one minute after the patient has exercised until he is winded by jogging in place. When the optimum dose is approached, a significant (20 mm Hg) drop in post exercise pressure will occur. This technique can be used to rapidly advance the dose during weekly titration until post-exercise hypotension is observed. Then weekly increments in dose must be smaller and particular care in fluid balance and rapid postural changes must be exercised.

Clonidine

Although widely used abroad for several years, clonidine has only recently been made commercially available as an antihypertensive agent in this country. Clonidine is considered a sympatholytic agent, but the hypotensive mechanism of this drug is unique: it does not block adrenergic receptors; it has no effect on ganglionic or postganglionic neural transmission; it does not deplete tissue stores of norepinephrine or other biogenic amines; and it does not lead to the formation of false transmitters. Clonidine's locus of action is thought to be the medullary vasomotor center, where its ability to stimulate central alpha-adrenergic receptors leads to inhibition of sympathetic outflow to the periphery. This diminution of sympathetic discharge is sufficient to suppress central pathways normally active in controlling blood pressure. However, like reserpine, clonidine does not totally block homeostatic reflex mechanisms, and postural hypotension, if it occurs, is mild. A decrease in peripheral renin activity may also contribute to clonidine's hypotensive action.

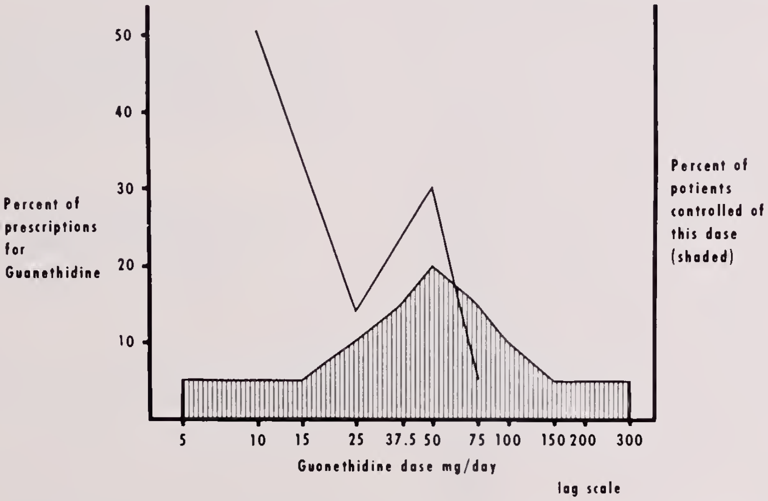

Figure 3. Comparison of guanethidine dose prescribed with the expected range of optimum dose. The shaded portion shows the range of optimum doses in an average hypertensive population. Note that this drug has a tremendous range of optimum dose. The graph line shows the actual doses prescribed in the Nebraska survey. The marked tendency to use small doses of guanethidine is evident.

Administration of clonidine causes a transient pressor response, resulting from peripheral alpha-adrenergic stimulation, followed by a persistent fall in blood pressure associated with reduced cardiac output, peripheral resistance, and a bradycardia. The long-term effect of clonidine is mediated by the lowered peripheral resistance, as cardiac output tends to return to normal. Renal blood flow and glomerular filtration rate are maintained even during prolonged therapy.

Clonidine is remarkably free of serious side effects. Dryness of the mouth and drowsiness are the most frequently encountered, but tolerance to these and other side effects — constipation, fatigue — usually develops after several months in the majority of patients. Impotence is rare. Clonidine has been used in patients with a history of depression without adverse effects. Salt and water retention is marked but, as with other sympatholytics, use with a diuretic alleviates this condition and improves the hypotensive response. Although the cardiac effects of clonidine are mild, caution should be exercised in combining it with agents that depress cardiac function. A potentially dangerous side effect associated with prolonged clonidine therapy is the precipitation of a hypertensive crisis upon abrupt withdrawal of the drug. Thus, if cessation of clonidine therapy becomes necessary, other antihypertensive medication (e.g., reserpine to deplete catecholamine stores) should be instituted coincident with the *gradual* withdrawal of clonidine.

Clonidine is effective in moderate to severe hypertension, especially when combined with a diuretic. However, owing to its unique central sympatholytic action, the drug may find its greatest use in conjunction with other agents that suppress adrenergic function by peripheral mechanisms. The average daily dose of clonidine may range from 0.4 to 4 mg. Its effect is relatively short-lived, so that it must be given in 3-4 divided doses. Intravenous clonidine has been suggested for use in hypertensive crisis, but administration by this route may be associated with a prolonged pressor phase and a greatly decreased hypotensive response.

The Physician as a Nutrition Educator *

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ARE Nebraska physicians aware of the importance of their role in the nutrition education and well-being of their clientele and the general public? It is believed that the physician is the primary professional source of nutrition information utilized by the general public. Data from previous studies in other states, however, indicates that the physician does not obtain very much specific nutrition education in medical school. Since the physician's knowledge of and attitude toward nutrition can influence the nutritional status of the patient, the Department of Food and Nutrition at the University of Nebraska in Lincoln conducted a survey to further explore this topic.

Subjects for this study were the physicians on the mailing list of the Nebraska Medical Association. The sample population was composed of 292 physicians who returned a questionnaire designed to determine their nutrition knowledge, attitudes and factors influencing these parameters.

Approximately 43% of the sample population were general practitioners. Eighty-eight

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percent of the physicians surveyed had received some type of nutrition education in medical school. The integrated approach was the most common vehicle of nutrition education. Only 9% of the physicians had received their nutrition education in the form of specific nutrition and/or diet therapy coursework. Inclusion of nutrition education in the medical school curriculum resulted in higher nutrition knowledge scores.

For the entire knowledge test, 65% of the responses were correct. Physicians scored slightly higher on basic nutrition knowledge questions than those related to therapeutic nutrition. Current concepts of diet therapy posed the greatest problem for physicians in all areas of therapeutic nutrition.

Physicians exhibited a highly favorable attitude toward nutrition, their role as nutrition educators and the importance of nutrition in medical school. Many of the responding physicians, however, indicated they could have used more nutrition education in medical school in order to handle the nutrition problems of their patients.

While the physicians had a positive attitude toward the profession of dietetics, they seldom discussed diet prescriptions with the dietitian. Only 40% of the physicians with access to the services of a dietitian indicated frequent use of their services.

Nutrition knowledge and attitude scores were affected by the type of practice in which the physician was engaged. Medical school faculty exhibited higher nutrition knowledge scores than physicians in other types of practice, while physicians in hospital practice had a more positive attitude toward nutrition as an essential component of health care.

Type of medical specialty also affected nutrition knowledge and attitude scores. Surgeons were found to be less knowledgeable about nutrition than other specialists while general practitioners possessed the least favorable attitudes toward nutrition.

Age and the number of years in practice had a negative affect on nutrition knowledge score. The older the physician was and the longer he had been in practice, the less he knew about nutrition.

The results of this study indicate that physicians, while having a positive attitude toward their role as nutrition educators, may receive insufficient nutrition education to answer all of their patients' questions. Initiation of a more comprehensive nutrition education program in medical school might help prevent future physicians from facing this dilemma. Also, greater utilization of professional nutritionists and dietitians would benefit the practicing physician who must cope with nutrition related problems.

Behavior Therapy for Obesity: Another Fad or a New Set of Facts?

PART III

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Results

A total of 43 subjects (including those in delayed treatment groups) completed the entire 14-week treatment program leaving 23 subjects in Group BC and 20 in Group FM at the end of treatment. The 11 treatment drop-outs, some of whom lost large amounts of weight, left the program for a variety of reasons including personal and family health problems (4), pregnancy (1), marital problems (1), marriage during the program (1), and dissatisfaction with and/or poor success in the program (4). Of the 43 subjects completing the program, one had a hysterectomy and one a serious thyroid problem during the course of treatment (or delay) and were consequently lost to the study. Another subject who became pregnant immediately after completing her treatment was eliminated from the subsequent follow-up analyses.

Weight changes without treatment. As inspection of Figure 1 reveals, subjects' weights in all treatment conditions were highly stable during pretreatment and no-treatment delay periods. Thus, in the 2—4 week interval between the initial weigh-in and first treatment session subjects in non-delayed groups BC and FM evidenced an average weight change of + 1.1 (*SD* = 4.3) and —.25 (*SD* = 3.7) pounds respectively. Similarly, subjects undergoing the 8-week treatment delay showed only minor weight fluctuations during a 10—12 week period (2—4 weeks pretreatment plus 8-week waiting period) with the mean change for delayed Groups BC and FM being 0.0 (*SD* = 6.9) and 2.2 (*SD* = 2.9) over the period of delay.

Weight losses following treatment. Statistical comparisons of both therapist and delay conditions within treatments reveal no therapist nor delay effects in either of the two therapeutic procedures. Accordingly, treatment groups were combined across therapists and delay conditions for all subsequent treatment group comparisons.

Large and highly significant weight losses were in evidence after 14 weeks of therapy in both behavioral treatment conditions (see Table 1), the distributions of weight losses in the treatment and no-treatment phases showing a very small amount of overlap. Subjects in Group FM lost an average of 18.6 lbs. (*SD* = 7.6) while those in Group BC lost an average of 16.1 lbs. (*SD* = 4.9), this difference being statistically non-significant. The two behavioral treatment procedures also evidenced comparable degrees of success on three additional weight loss indices: 1) mean percentage of desired reduction achieved reflecting the amount of weight lost relative to weight loss goals set prior to treatment by each subject for post-treatment and follow-up time periods; 2) mean percentage of total *excess* weight lost as indicated by the Metropolitan Life Insurance (1959) weight standards for women and; 3) number of subjects in three weight loss categories representing less than 1, 1-2 and 2 or more pounds lost per week during treatment (Table 2).

Weight losses at follow-up. At the time of the 3 month follow-up, subjects in Group FM had extended their weight losses to an average of 22 lbs., sliding back only a pound and a half from this to 20.4 total pounds off at the 6-month follow-up (see Table 1). Group BC did not fare quite so well at these two follow-ups but did post a respectable mean of 17.0 pounds lost at the 3-month and 14.6 pounds lost at the 6-month follow-up. The differences between the two behavioral treatment groups were significant at both the 3-month (one-tailed $\underline{t}$[38] = 1.85, $\underline{P} < .05$) and 6-month (one-tailed $\underline{t}$ [38] = 1.93, $\underline{p} < .05$) follow-ups.

Statistical analysis of follow-up weights 9, 12 and 18 months after treatment are not complete at this time permitting only partial reportage. Table 3 and Figure 2 reveal that weight losses were maintained fairly well in both groups although the stimulus control treatment posted better maintenance figures at all points. Statistical comparisons of both groups at these points of follow-up contact failed to achieve significance despite what were at times (see especially the 18-month point) large mean differences. This is attributable to some extent to the large variance in weight losses in Group BC (*SD* = 16.21). In this group one subject lost 40 and another *gained* 36 pounds during the follow-up period, both scores being a standard deviation away from the next closest. Although exclusion of these two subjects (whose weight changes tend to cancel out each other) would greatly change the results of the group comparison such a procedure is not easily defended.

Attrition during the follow-up period tended to boost slightly the mean weight losses for Group FM. Thus, the three "dropouts" from Group BC included subjects

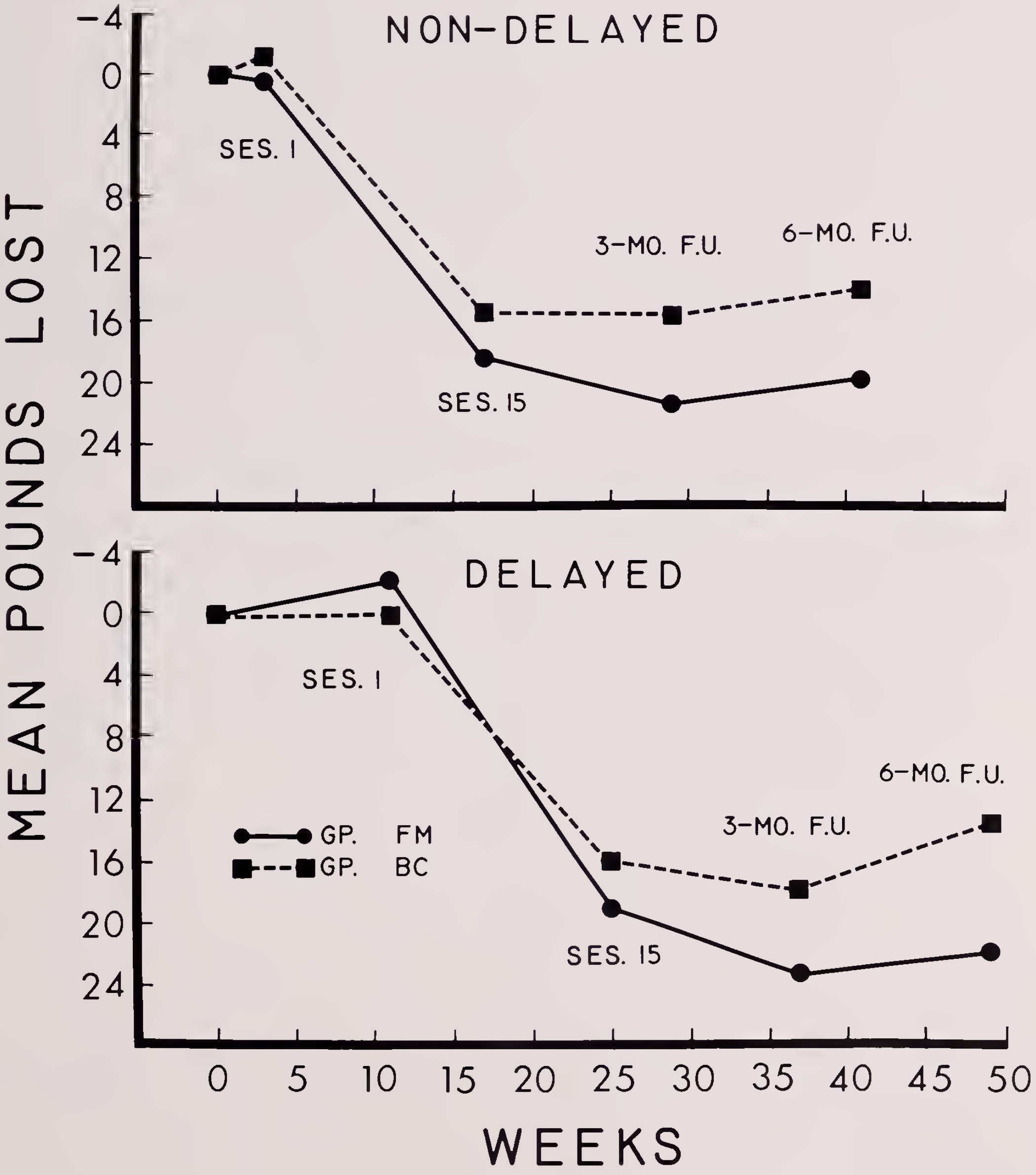

Figure 1. Mean Weight Losses for Delayed and Non-Delayed Groups Before and After Treatment.

TABLE 1

Mean Weight Losses and Percentages of Success

Treatment		Total Pounds lost			$\overline{X}$% of Desired loss*			$\overline{X}$% of Excess Wt. Lost**		
		Post-	Follow-up		Post-	Follow-up		Post-	Follow-up	
		treatment	3 Mo.	6 Mo.	treatment	3 Mo.	6 Mo.	treatment	3 Mo.	6 Mo.
Food Management	$\overline{X}$	18.6	22.0	20.4	64.4	52.1	47.8	41.1	47.8	43.9
	SD	7.6	9.7	10.1	32.3	25.5	25.4	21.3	23.2	22.9
	n	20	19	19	20	19	19	20	19	19
Behavior Control	$\overline{X}$	16.1	17.0	14.6	60.1	52.3	45.4	36.9	38.5	32.0
	SD	4.9	7.0	8.8	27.7	31.3	35.1	17.7	22.1	23.5
	n	21	21	21	21	21	21	21	21	21
Total	$\overline{X}$	17.4	19.4	17.4	62.2	52.2	46.6	38.9	42.9	37.7
	SD	6.4	8.6	9.8	29.7	28.3	30.5	19.4	22.8	23.7
	n	41	40	40	41	40	40	41	40	40

*$\sum_{1}^{n}$ Amount Lost/Amount Desired to Lose x 100 ÷ n

**$\sum_{1}^{n}$ Amount Lost/Amount Overweight x 100 ÷ n

TABLE 2

Number of Subjects in Three Weight Loss Categories after 14 Weeks of Treatment

Treatment	0 - 13	14 - 28	> 28
Food Management	6	11	3
Behavior Control	6	15	0

TABLE 3

Mean Weight Losses for Each Therapy Condition 9, 12 and 18 Months After Treatment

	Treatment					
	BC			FM		
Months of Follow-up	$\bar{X}$	SD	N	$\bar{X}$	SD	N
9	12.55	11.05	20	16.66	9.64	18
12	12.75	13.98	20	14.37	9.77	16
18	8.27	16.21	18	15.33	10.41	15

both above and below the overall mean weight loss for their group but all the five subjects lost from Group FM were below the mean for their group immediately before leaving the study (i.e., they had lost less than others when they dropped out).[4] The exact effect of this bias on group means is beyond specification and most difficult to control for statistically.

Briefly, these results show that a behavioral treatment procedure emphasizing the elimination or reduction of eating cues in the obese person's environment can have significant and lasting treatment effects.

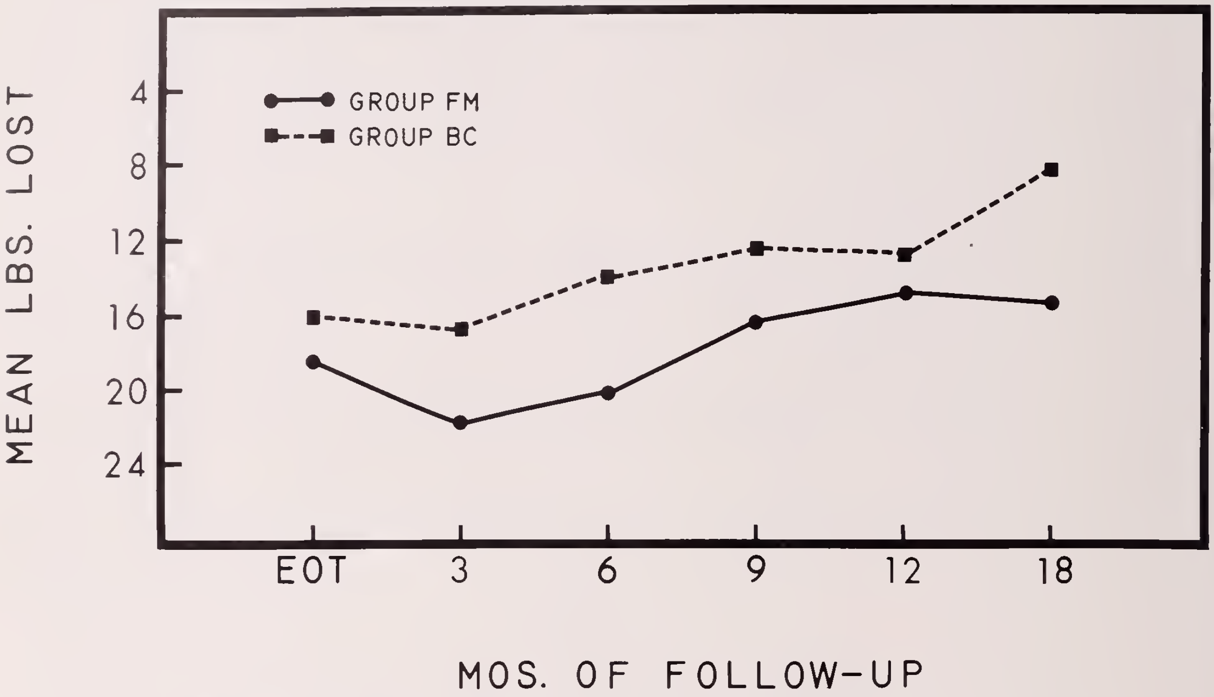

Figure 2. Mean Weight Losses for Each Therapy Group at the End of Treatment (EOT) and During Follow-up.

One Fourth of the Bicentennial Years Devoted to Treating the Sick

W. F. NOVAK, M.D., F.A.C.S., F.I.C.S.

A physician is very fortunate who has the privilege of practicing medicine for 50 years. Altho an expert is considered a person away from home I decided to start practicing in Howells, Nebraska, a small town where I was born and taught school and where the doctor lives with his patients and shares their joys and their sorrows. My status was enhanced after I hung in my reception room a "Zeugnis" that I brought from Vienna where I had taken graduate work. Most of my patients were Czechs or Germans.

In the early days there were very few graveled roads. The doctor made house calls in town and in the country. A physician could not write a prescription at midnight twelve miles out in the country and expect to have it filled. He had a mini pharmacy in the trunk of his car where he had a supply of aspirin, quinine, paregoric, digitalis, epicac, castor oil, calomel, urotropin, and apomorphine. These were some of the common drugs usually given on the first trip. Morphine was safe in the doctor's bag.

In some respects I was like the doctor about whom the people said "He was a good doctor. If he didn't now what was wrong with you, he would go out to the car and read a book (Merck's Manual?) and then come in and tell you all about your sickness."

The OB bag was always in the car because many of the expectant mothers in the country received little or no prenatal care and when they called the doctor they didn't want to tell him what was wrong on the telephone which was usually "bugged."

There are many memories, both pleasant and sad, of events of the first ten years and the last ten years of the fifty. Those were the days of establishing a practice, of marriage, of home-making, children, family gatherings, anniversaries, sicknesses, and deaths. The middle thirty years passed quickly. Those were the golden years of medicine — penicillin, sulfa drugs, antibiotics, cobalt, improved treatment of cancer and tuberculosis, polio vaccine, organ transplants, and heart surgery, just to mention a few of the advancements. When I was told that there was a nurse at a hospital from my home town, I approached her and asked "Didn't I bring you into the world?" "No," she answered, "that was my mother." I limped away, tempus fugit.

During the fifty years, thousands of calls were made in answer to the knocks on the door or the ringing of the telephone but the last call I shall answer will come from above probably via Telstar.

Carbamazepine in Diabetes Insipidus

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Introduction

DIABETES insipidus is a syndrome characterized by polyuria, polydipsia and persistently low urinary solute concentration. The syndrome might be associated with a deficiency of vasopressin and such cases are treated by vasopressin injections. However, the inconvenience of parenteral administration and occasionally vasoconstrictive reactions made it desirable to search for an oral agent. Even intranasal administration of nasal vasopressin (pitressin) powder has been reported to be associated with nasal irritation.[1] A number of oral agents either singly or in combination have been used with variable success.[2] These include thiazides and related diuretics,[3] chlorpropamide,[4] clofibrate, halofenate[5,6] and carbamazepine.[7,8] Thiazides were introduced by Crawford and Kennedy[3] in the treatment of diabetes insipidus. These agents are reportedly useful in vasopressin sensitive as well as vasopressin resistent diabetes insipidus. Common side effects of these agents include: hyperglycemia, hyperuricemia and blood dyscrasia. The antidiuretic effect of chlorpropamide was first reported by Arduino, Ferras, and Rodrigues in 1966.[4] This drug potentiated the antidiuretic effect of vasopressin,[9] and thus had no value in treatment of vasopressin insensitive diabetes insipidus. The most prominent side effect of chlorpropamide was the occurrence of protracted and serious hypoglycemia and therefore careful monitoring of blood sugar was desirable. Clofibrate is a hypolipidemic agent exhibiting antidiuretic action in patients with diabetes insipidus. however, the physical characteristics of clofibrate (thick, oily, viscous fluid) and lack of availability of the drug in smaller dosage made it difficult to give the minimum amount of effective drug to a patient. This was particularly a problem in treating children. Carbamazepine was first reported to be effective in treating patients with vasopressin sensitive diabetes insipidus by Braunhofer and Zicha[10] in 1966. This observation was confirmed by other workers.[7,8] The drug was effective in patients who had previously been given vasopressin in contrast to chlorpropamide which was less effective if a patient had been first placed on vasopressin. Lack of acute side effects made carbamazepine a drug which could be started on an outpatient basis. The present report is of a white male who benefitted from carbamazepine after being successfully weaned from vasopressin injections which he took for 8 years. The maximal antidiuretic effect of this drug was not evident on the subject until about six months after the initiation of the drug. This phenomenon, to our knowledge, has not been commented upon in the literature.

Case Report

TT was a 25 year old white male who had unremarkable birth and early development. A diagnosis of diabetes insipidus was made elsewhere in the summer of 1966 on the basis of polyuria, polydipsia, lethargy and persistently low specific gravity of the urine. About one year later a glioma of the optic chiasma was treated by partial excision and radiotherapy. He was advised to take vasopressin (Pitressin tannate in oil) by injections and an androgen (Halotestin) orally, both of these he continued. In May 1971 the investigations revealed that he was hypothyroid and had hypoadrenalism. Therefore, replacement dose of thyroid hormone and prednisone was added. These drugs also have been continued. He has been leading a normal life working in his father's business. He has not married. He drank about 2000-3000 ml of water per day and urinated approximately five times during the day and twice during the night, and both of these features have remained substantially unchanged. Bowel movements have remained regular and appetite has also been good.

The past history was unremarkable until 1955 when he suffered a fractured clavicle. In 1965 he suffered a knee injury secondary to falling from a horse and for this the knee was immobilized in a cast for a few weeks. Recognition of shortening of the left lower extremity in 1968 necessitated a radiologic examination of the hips and this revealed a slipped distal femoral epiphysis and premature closure of the medial portion of epiphysis. In 1971 osteotomy of the distal femur was performed. The post-operative course was complicated by water intoxication. The water intoxication was treated by fluid restriction and stopping further injections of vasopressin. He recovered in a week. He has suffered no further complications.

Family History: His parents are alive and well. He has 2 living sisters, age 28 and 23 and each have 2 children. A 3rd sister died at the age of six weeks secondary to congenital adrenal hyperplasia. He has 1 living brother who has congenital adrenal hyperplasia. A second brother died at 2 weeks of age from congenital adrenal hyperplasia.

Physical Examination: (July 1975) TT looked well, was in no distress, and had pale smooth skin. His height was 176.2 cm, weight 66.3 kg and the pulse was 72 per minute. The blood pressure in the right arm in recumbent position was 120/78 mm Hg. The ears, nose and throat were normal and the cranial nerves, except for the optic nerve, were intact. He had no facial or axillary hairs. Gynecomastia (Tanner stage III) was present. The heart sounds were normal and no bruit was heard. The chest was normal to percussion and to auscultation. Liver and spleen were not enlarged. The penis measured 7.6 cm (stretched length) and testes were slightly firm in consistency and the left was 4 ml and the right was 3 ml in volume. There was a difference of about 2 cm between the two lower extremities, the left being the short one. Bilateral pes cavus was also noted. The sensory system, motor system and the tendon reflexes were normal. The planter reflex was flexor. The ophthalmological examination was reported as follows: Visual acuity L—20/25, R/20/200, pupillary reaction to light and to accommodation was normal. Optic disc showed temporal pallor, the vascular arcades were normal. These signs have remained static over the past several years.

Present Drugs: Dessicated thyroid gr ii per day, prednisone 5 mg per day. Halotestin 10 mg per day, carbamazepine 400 mg per day.

Laboratory Investigation: A number of laboratory investigations were done during the course of the year, the relevant ones were as follows: Electroencephalographic examinations had been repeated on a number of occasions and had shown only slight changes. The last tracing was read as abnormal EEG, worse anteriorly. A possible focus of flattening in the left anterior lead is seen. An intravenous pyelogram was reported as normal however a stricture of the penile urethra with a trabeculeted thickened bladder was noted. The complete blood count was: Hb-15.0 gm%, leukocyte count 8,700/cumm, haematocrit 44.5%, and the red cell count was 5.4 million/cumm and the red cell indices were normal. The routine urinalysis except for the specific gravity was normal.

In April 1971 the serum thyroxin was less than 1.0 microgram per 100 ml (prior to initiation of dessicated thyroid) and the plasma cortisol at 8:00 AM was 5.5 microgram per 100 ml and the 4:00 PM value was 6.0 microgram per 100 ml. These values were consistent with adrenal failure. The urinary excretion of Porter-Silber chromogen (before the initiation of replacement treatment) was 0.9 mg/24 hour.

Progress: Prior to July 1974 the patient was taking 5 units of vasopressin (Pitressin tannate in oil) intramuscularly every 36-48 hours. He took the injection when the urine specific gravity fell to 1003 or below and/or if there was an increase in thirst or polyuria. On July 1974 he was prescribed carbamazepine and was requested to record the urine specific gravity before breakfast, on retiring and just prior to taking the vasopressin injection and also the number of injections of vasopressin taken.

The initial dose of carbamazepine was 1/4 tab (i.e. 50 mg) b.i.d. Two days later the dose was doubled and it was further increased to 1 tab b.i.d. on the 5th day of starting the medication. He tolerated the drug well and the frequency of the vasopressin injection decreased (see figure 1). Twenty-six days later carbamazepine was increased to 1 tab t.i.d. He continued to tolerate the drug, had not experienced any worsening of the symptoms and the requirement for vasopressin decreased to about one injection every six days. Three months after starting carbamazepine, he stopped measuring the urine specific gravity as he felt his subjective feelings were a good indicator of a drop in the urine specific gravity and the need for vasopressin injection. It was interesting to observe that even though he had been on 600 mg of carbamazepine since July 26, and the vasopressin requirement diminished, the maximum rise in urine specific gravity was not achieved until the end of December 1974. During December 1974 and January 1975, he did not require any vasopressin injections and still felt well. The maximum urine specific gravity recorded was 1020. He was asked to stop taking carbamazepine during the month of February 1975. He stopped the drug on February 10th, the specific gravity of the urine fell to 1003 on the next day and he had to take an injection of vasopressin on that day and again 3 days later. He restarted carbamazepine on the same day on his own initiative in the dose of 1 tablet b.i.d. He has not taken further injections of vasopressin since that time.

Comment

The patient exhibited typical features of vasopressin sensitive diabetes insipidus and the syndrome was adequatey controlled by vasopressin injections. It was a great inconvenience for him to take vasopressin injections. (He had been working as a helper in his father's business of selling old furniture. His job involved long distance travel to buy the furniture at auctions and working at irregular hours.) We therefore decided to try an oral agent which could be started on an outpatient basis without exposing him to a major risk. We were particularly careful to avoid a drug with potential side effects of causing hypoglycemia or electrolyte disturbance because of the associated condition of hypopituitarism in the subject. Thiazide diuretics and chlorpropamide were considered to be hazardous. Furthermore, Nawar[2] does not recommend

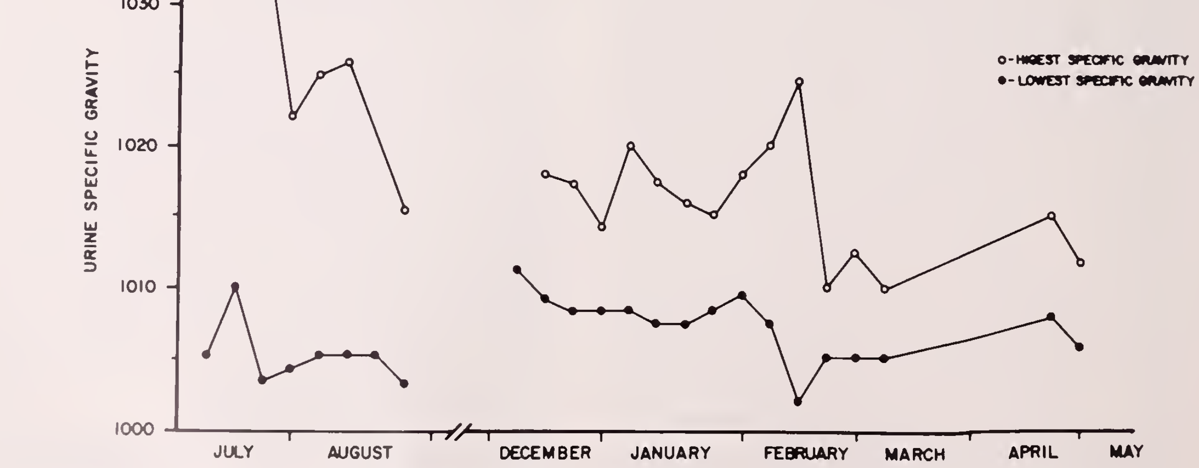

Figure 1: The effect of carbamazepine on the urine specific gravity and on the number of vasopressin injections.

thiazide drugs as the sole therapy in pituitary diabetes insipidus. Carbamazepine was chosen. In dosage less than 400 mg the drug does not seem to be beneficial, however, as the dose was increased, the number of vasopressin injections required decreased (see figure 1). The maximum effect was however not noticed for about six months; not only did the requirement for vasopressin injections cease, but the specific gravity of the urine also increased. Investigators[7, 8, 11-13] reporting on the beneficial effect of the drug have not commented on this phenomenon of delayed maximal effect. It is unlikely that the significant rise in urine specific gravity and the absence for need of vasopressin injection was due to spontaneous remission because we requested a withdrawal of the drug for the month of February. He developed thirst, drank more water and passed increased quantity of urine of low specific gravity and had to take injections of vasopressin to control his symptoms. He therefore restarted carbamazepine on his own initiative 4 days later. He has since been on carbamazepine 400 mg daily (instead of 600 mg per day — the dose he was taking prior to discontinuation of the drug). The reduced dosage controlled his symptoms, but the urine specific gravity was lower. This demonstrated a dose related effect on the urine specific gravity and this phenomenon was also noted by Rado' and his colleagues.[11]

Several studies[14-16] have suggested that carbamazepine acts by enhancing the vasopressin secretion, and it was reported by Bonnici[15] to be ineffective in a patient who presumably had a total deficit of vasopressin and also in two sibs with vasopressin resistent diabetes insipidus.

Since clofibrate also appeared to enhance the vasopressin in secretion,[17] while chlorpropamide potentiated the effect of vasopressin in distal renal tubule, it was logical that a combination of carbamazepine with any of the above drugs might be effective when a single drug was ineffective or was less useful. Indeed a combination of the two drugs was tried by Rado'13 and Muhlendahl and Manz[12] successfully in the treatment of vasopressin sensitive diabetes insipidus. However the decision to add another drug should be taken only after the carbamazepine has been tried for about six months. Since the maximum antidiuretic effect of the carbamazepine may be delayed as was illustrated in the present case.

Acknowledgement: My sincere thanks are due to Dr. Patricia Bunger for critically reviewing the manuscript.

Summary

A 25 year old white male, who suffered from vasopressin sensitive diabetes insipidus due to glioma of optic chiasma, was successfully treated with carbamazepine. He had been on vasopressin for the previous eight years. The optimal dose of carbamazepine is 400-600 mg. The lower dose may produce clinical improvement but the urine specific gravity rises further on increasing the dose. The maximum effect on urine specific gravity was not seen until about six months after the initiation of the treatment.

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Down Memory Lane

1. One autogenous kidney transplant functioned normally for four months.

2. There are three distinct groups of those who are operating in the present age, (1) Butchers, (2) Operators and (3) Surgeons.

3. The use of calorimetry allows us a true and positive means of detecting hyperthyroidism and hypothyroidism.

4. A suit for damages for alleged malpractice is a spectre which the doctor has never been able to accept with equanimity.

5. There are about 2,000 physicians in the State of Nebraska. Approximately 1,300 are members of the Nebraska State Medical Association.

6. The telephone was invented in 1876 — just fifty years ago — and many a physician now practicing in Nebraska remembers the days when his calls came by messenger.

7. Glistening sheets of what appears to be paper are much used nowadays to wrap boxes of candy and other articles. This material is cellophan. It has been discovered that this material makes a sterilizable dialyzing membrane.

8. The first annual meeting of the Woman's Auxiliary of the Nebraska State Medical Association was held in Omaha, May 11th, to 13th.

9. An editorial in an Omaha daily recently pleaded for the use of simpler expressions by doctors in explaining medical facts to their patients. Suppose that editor was seized with an attack of appendicitis and his physician would tell him he had the "bellyache in his blind pouch—and inflammation of the guts." Would that make him feel any better?

10. The Bryan Memorial hospital at Lincoln, was formally opened May 20.

11. The Nebraska State Eclectic Medical Association held an annual meeting at the Lincoln Hotel, Lincoln, in the middle of May.

Nebraska State Medical Association
July, 1926.

President's Page

NEBRASKA MEDPAC

Political Action!

This is an election year. We are all cognizant of the political activity surrounding us. Although we are physicians interested primarily in providing the best possible medical care to our patients, we are also citizens of the United States of America. As citizens, we have the responsibility of participating in the government of this democracy. We will do so by exercising our right in the nomination and election of our representatives in government.

We can easily participate in political endeavors through Nebraska MedPAC. This voluntary nonprofit unincorporated committee of individual physicians and others was formed in 1965. It is a completely independent and autonomous organization. It is not affiliated with any political party.

The purpose for formation of Nebraska MedPAC was to (1) promote and strive for the improvement of government by encouraging and stimulating physicians and others to take a more active and effective part in governmental matters; (2) encourage physicians and others to understand and evaluate the nature and actions of government, the significance of political issues, the records of office holders, and the pertinent qualifications of candidates for elective office; (3) assist physicians and others to organize themselves for effective political action to promote civic responsibility and integrity in the government and (4) to do any and all things necessary or desirable for the attainment of the purposes stated above.

This organization is under the control and supervision of a Board of Directors who serve without compensation. Subject to the approval of the Policy Committee, the members of the Board of Directors are appointed by the President of the Nebraska Medical Association. The Board of Directors consists of at least twelve members appointed for a one year term with no member being eligible to serve for more than five years. The members of the current Board of Directors are: Drs. John D. Coe, Omaha, Chairman; Warren G. Bosley, Grand Island; James S. Carson, McCook; Harold R. Horn, Lincoln; James Ramsey, Atkinson; Herbert E. Reese, Lincoln; C. Lee Retelsdorf, Omaha; Jerald R. Schenken, Omaha; J. P. Schlichtemier, Omaha; Robert F. Shapiro, Lincoln; H. Neil Sievers, Blair; and Richard L. Tollefson, Wausa. Also a member of the Board of Directors and a member of the Auxiliary to the Nebraska Medical Association is Mrs. Leland J. Olson of Omaha.

Through these capable members of the Board of Directors of Nebraska MedPAC, we have an opportunity to be heard in the political arena in urging the support of our concept of American medicine. Such unity of support and activity becomes mandatory as we note the support that opponents of American medicine are providing their candidates.

Recently, an editorial in the *Detroit Medical News* by Dr. James C. Danforth, Jr., was reprinted in the *American Medical News*. It was pointed out that a low scale wage earner working for one of the automotive corporations, presumably in Detroit, contributes ten dollars a week or $520 a year to the UAW. This contribution is made by a worker who is "at the bottom of the ladder." What percentage of this contribution is used for political activity by his union?

I, for one, am convinced that if each physician in active practice in this country would contribute as little as $100 per year in the support of political candidates, we as physicians would be more effective than organized labor in directing the political course of this country and the destiny of medical practice. We have an opportunity through Nebraska MedPAC to unite with our colleagues in political action in supporting candidates with views favorable to American medicine. The anemic support given by Nebraska physicians to these efforts has been discouraging. Our greatest hope in preserving our concept of the practice of medicine in this country rests in unity of political action.

Join Nebraska MedPAC!

Harlan L. Papenfuss, M.D.
President

Welcome New Members

Keith C. Bogart, M.D.
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Omaha, Nebraska 68105

The Auxiliary

Nebraska Medical Association Auxiliary
Annual State Convention Meeting
May 2-5, 1976
Report: Resolutions Committee

WHEREAS, we consider it fitting and proper to express our thanks to all who have contributed to the success of the convention and the accomplishments of our past year's work; therefore be it

RESOLVED, that we, the members of the Nebraska Medical Association Auxiliary, extend our grateful thanks and appreciation to the officers and other members of the Executive Board of our organization, who have so ably carried on the business necessary for the proper functioning of the Auxiliary; and be it further

RESOLVED, that our thanks and appreciation go to the members of the Buffalo County Medical Auxiliary, hostess to this Fifty-first Annual Meeting, for the welcome hospitality extended to all of us; and be it further

RESOLVED, that we express particular gratitude to Mrs. Robert Sidner and Mrs. Ron Scott, Convention Chairmen, and to their committee chairmen for their work and thoughtfulness in planning for our convenience and entertainment, and be it further

RESOLVED, that the Nebraska Medical Association be advised that we appreciate their leadership and assistance, that in particular Dr. Warren Bosley, President of the Nebraska Medical Association, and the Advisory Committee, be informed of our gratefulness for their help and guidance throughout the year, and for including us in the Symposium on Psychiatry — "Medicine & Marriage," and be it further

RESOLVED, that Dr. Frank Cole, Editor of the Nebraska Medical Journal, Mrs. Warren Bosley, Mrs. Kenneth McGinnis and Mrs. Robert Jones, Editors of the NEWSLETTER, Blue Cross-Blue Shield for their continued interest and support of our NEWSLETTER, Mr. Kenneth Neff, Executive Secretary of the Nebraska Medical Association, Mr. William Schellpeper, Assistant Executive Secretary, and the office assistants for their help in preparing materials and mailing the NEWSLETTER, be advised of our sincere thanks for the efficient way they have handled our Auxiliary news, and for their ready assistance whenever we asked for it, and be it further

RESOLVED, that we express our thanks to the management of the Holiday Inn and the Ramada Inn in Kearney, The Kearney Humanities League for their help in arranging the tour of the Frank House, The Kearney High School Music Department for entertainment at the Tuesday Brunch and the Kearney Hub and the Omaha World Herald, and be it further

RESOLVED, that we pledge our loyalty and devotion to the Nebraska Medical Association Auxiliary; that we continue to be faithful in supporting its activities; promoting its projects and protecting its reputation and high ideals, and be it finally

RESOLVED, that these resolutions be published in the NEBRASKA MEDICAL JOURNAL.

Respectfully submitted
Mrs. Frank H. Tanner
Chairman

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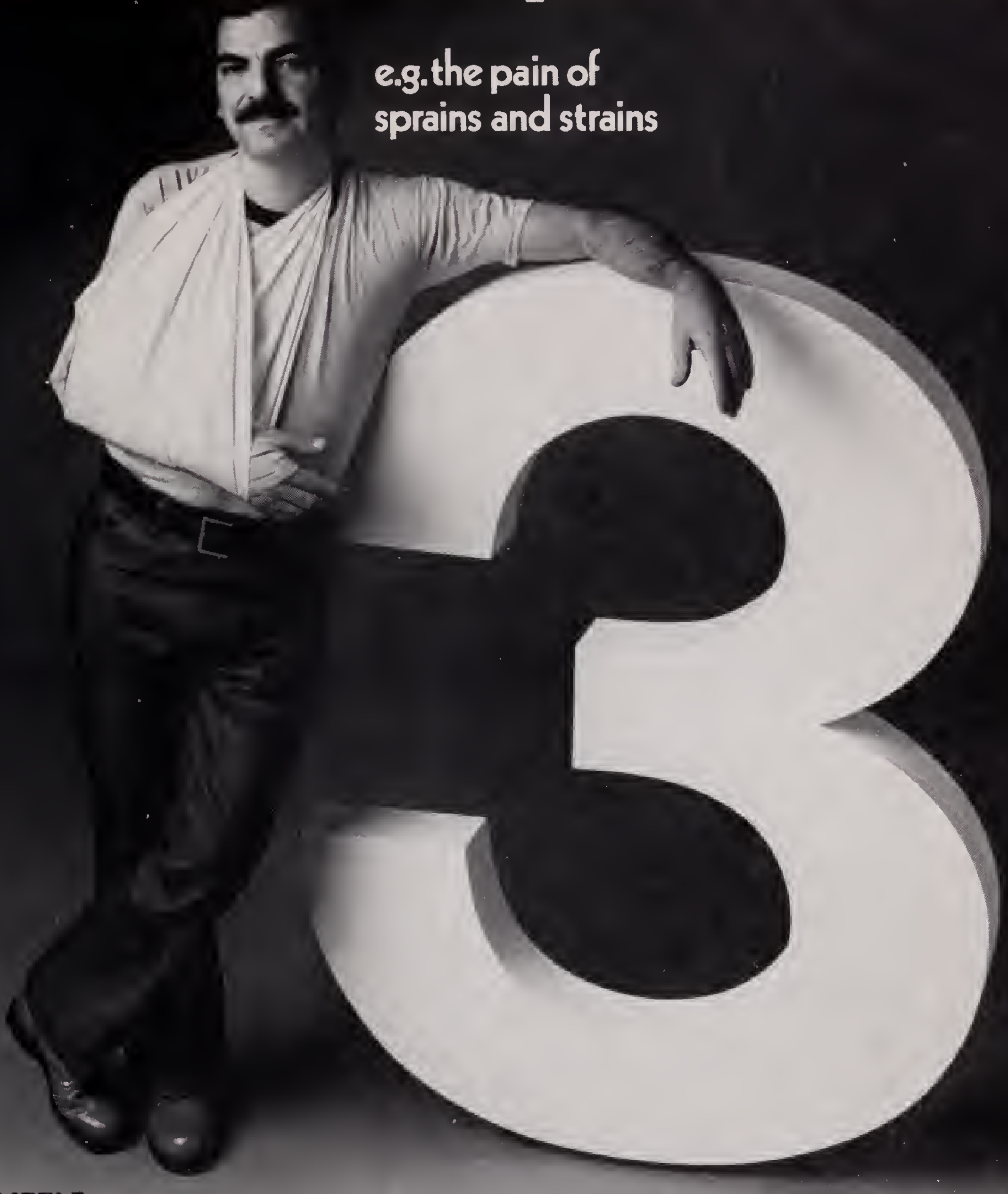

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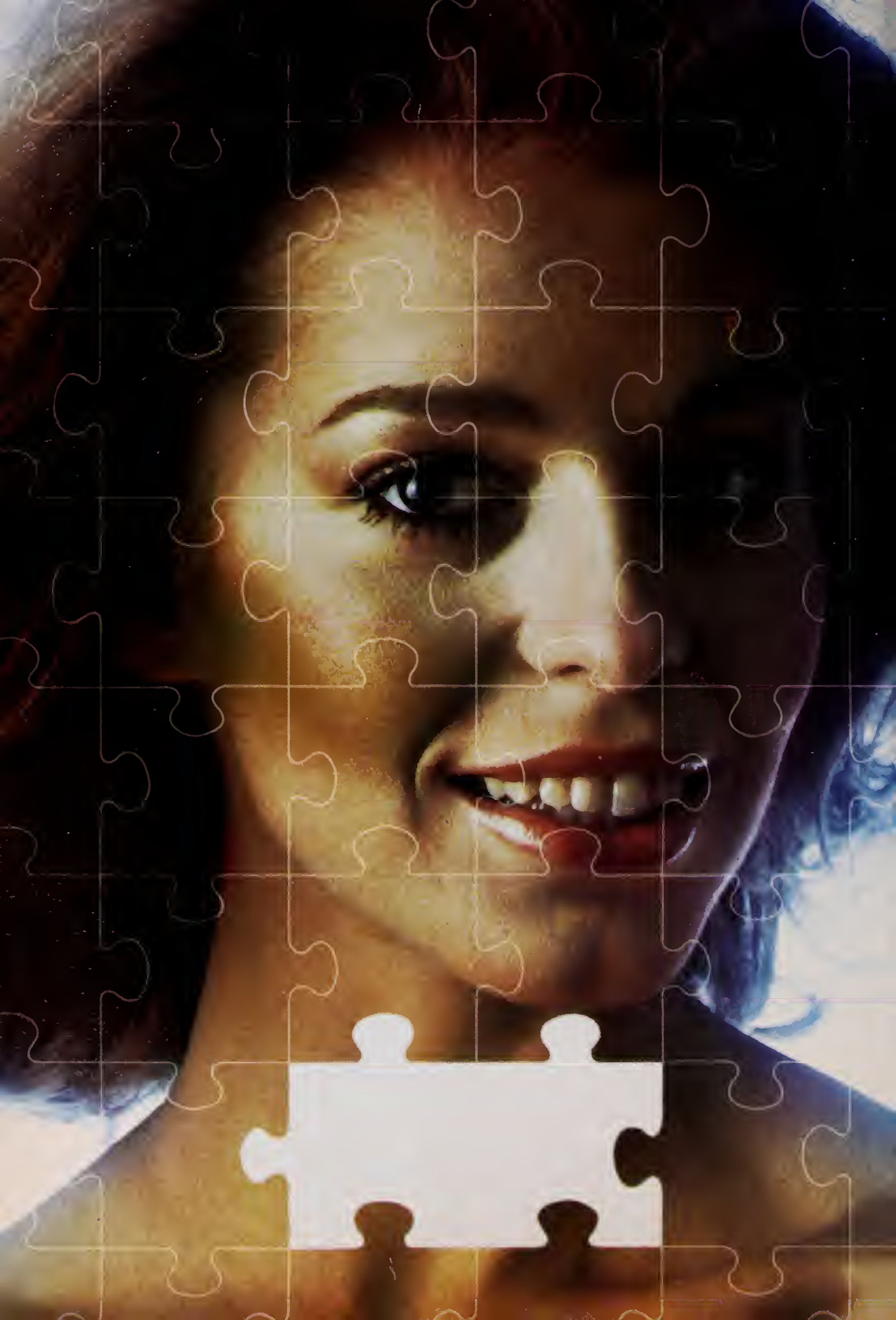

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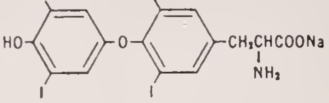


Sodium Levothyroxine

Actions: SYNTHROID (sodium levothyroxine) **Tablets,** taken orally, provide hormone that is readily absorbed from the gastrointestinal tract SYNTHROID **Injection** is effective by any parenteral route. Following absorption, the synthetic L-thyroxine provided by SYNTHROID products cannot be distinguished from L-thyroxine that is endogenously secreted Each is bound to the same serum proteins and each exhibits a six to seven day circulating half-life in the euthyroid individual

Both SYNTHROID products will provide L-thyroxine as a substrate for physiologic deiodination to L-triiodothyronine. Therefore, patients taking SYNTHROID products will demonstrate normal blood levels of L-triiodothyronine even when the thyroid gland has been surgically removed or destroyed by radioiodine. Administration of levothyroxine alone will result in complete physiologic thyroid replacement.

Indications: SYNTHROID (sodium levothyroxine) products serve as specific replacement therapy for reduced or absent thyroid function of any etiology SYNTHROID **Injection** can be used intravenously whenever a rapid onset of effect is critical, and either intravenously or intramuscularly in hypothyroid patients whenever the oral route is precluded for long periods of time.

Contraindications: There are no absolute contraindications to SYNTHROID (sodium levothyroxine) therapy Relative contraindications include acute myocardial infarction, uncorrected adrenal insufficiency and thyrotoxicosis. (See WARNINGS)

Warnings: Patients with cardiovascular diseases warrant particularly close attention during the restoration of normal thyroid function by any thyroid drug In such cases, low initial dosage increased slowly by small increments is indicated. Occasionally, the cardiovascular capacity of the patient is so compromised that the metabolic demands of the normal thyroid state cannot be met. Clinical judgment will then dictate either a less-than-complete restoration of thyroid status or reduction in thyroid dosage.

Endocrine disorders such as diabetes mellitus, adrenal insufficiency (Addison's disease), hypopituitarism and diabetes insipidus are characterized by signs and symptoms which may be diminished in severity or obscured by hypothyroidism. SYNTHROID (sodium levothyroxine) therapy for such patients may aggravate the intensity of previously obscured symptoms and require appropriate adjustment of therapeutic measures directed at these concomitant disorders.

Thyroid replacement may potentiate the effects of anticoagulants. Patients on anticoagulant therapy should have frequent prothrombin determinations when instituting thyroid replacement to gauge the need to reduce anticoagulant dosage.

Precautions: Overdosage with any thyroid drug may produce the signs and symptoms of thyrotoxicosis, but resistance to such factitious thyrotoxicosis is the general rule. With SYNTHROID (sodium levothyroxine) **Tablets,** the relatively slow onset of action minimizes the risk of overdose but close observation in the weeks following institution of a dosage regimen is advised. Treatment of thyroid hyperactivity induced by oral medication is confined to interruption of therapy for a week, followed by reinstitution of daily therapy at an appropriately reduced dosage.

Adverse reactions: Adverse reactions are due to overdose and are those of induced hyperthyroidism.

Dosage and administration: For most adults, a final dosage of 100 mcg (0.1 mg) to 200 mcg (0.2 mg) of SYNTHROID (sodium levothyroxine) **Tablets** daily will restore normal thyroid function and only occasionally will patients require larger doses Failure to respond adequately to a daily oral intake of 400 mcg (0.4 mg) or more is rare and should prompt reconsideration of the diagnosis of hypothyroidism, special investigation of the patient in terms of malabsorption of L-thyroxine from the gastrointestinal tract or poor adherence to therapy.

The concomitant appearance of other diseases, especially cardiovascular diseases, usually dictates a replacement regimen with initial doses smaller than 100 mcg/day (0.1 mg).

In otherwise healthy adults with relatively recent onset of hypothyroidism, full replacement dose of 150 mcg (0.15 mg) or 200 mcg (0.2 mg) has been instituted immediately without untoward effect and with good therapeutic response. General experience, however, favors a more cautious approach in view of the possible presence of subclinical disorders of the cardiovascular system or endocrinopathies.

The age and general physical condition of the patient as well as the severity and duration of hypothyroid symptoms determine the starting dosage and the rate of incremental dosage increase leading to a final maintenance dosage. In the elderly patient with long standing disease, evidence of myxedematous infiltration and symptomatic, functional or electrocardiographic evidence of cardiovascular dysfunction, the starting dose may be as little as 25 mcg (0.025 mg) per day Further incremental increases of 25 mcg (0.025 mg) per day may be instituted at three to four week intervals depending on patient response. Conversely, otherwise healthy adults may be started at higher daily dosage and raised to the full replacement dosage in two to three weeks. Clearly it is the physician's judgment of the severity of the disease and close observation of patient response which determines the rate of dosage titration.

Laboratory tests to monitor thyroid replacement therapy are of limited value. Although measurement of normal blood levels of thyroxine in patients on replacement regimens frequently coincides with the clinical impression of normal thyroid status, higher than normal levels on oral replacement of levothyroxine occasionally occur and should not be considered evidence of overdosage per se.

In all cases, clinical impression of the well-being of the patient takes precedence over laboratory determination in determining the appropriate individual dosage.

In infants and children, there is a great urgency to achieve full thyroid replacement because of the critical importance of thyroid hormone in sustaining growth and maturation. Despite the smaller body size, the dosage needed to sustain a full rate of growth, development and general thriving is higher in the child than in the adult, as much as 300 mcg (0.3 mg) to 400 mcg (0.4 mg) per day.

In myxedema coma or stupor, without concomitant severe heart disease, 200 to 500 mcg of SYNTHROID **Injection** may be administered intravenously as a solution containing 100 mcg/ml. Although the patient may show evidence of increased responsivity within six to eight hours, full therapeutic effect may not be evident until the following day. An additional 100 to 300 mcg or more may be given on the second day if evidence of significant and progressive improvement has not occurred Like the oral dosage form, SYNTHROID **Injection** produces a predictable increase in the circulating level of hormone with a long half-time. This usually precludes the need for multiple injections but continued daily administration of lesser amounts intravenously should be maintained until the patient is fully capable of accepting a daily oral dose.

In the presence of concomitant heart disease, the sudden administration of such large doses of L-thyroxine intravenously is clearly not without its cardiovascular risks Under such circumstances, intravenous therapy should not be undertaken without weighing the alternative risks of the myxedema coma and the cardiovascular disease. Clinical judgment in this situation may dictate smaller intravenous doses of levothyroxine

SYNTHROID **Injection** by intravenous or intramuscular routes can be substituted for the oral dosage form when ingestion of SYNTHROID **Tablets** is precluded for long periods of time.

How Supplied: SYNTHROID (sodium levothyroxine) **Tablets** are supplied as scored, color-coded compressed tablets in 6 concentrations: 25 mcg (0.025 mg)—orange . . . 50 mcg (0.05 mg)—white . . . 100 mcg (0.1 mg)—yellow . . . 150 mcg (0 15 mg)—blue . . . 200 mcg (0.2 mg)—pink . 300 mcg (0.3 mg)—green.

SYNTHROID (sodium levothyroxine) for **Injection** is supplied in 10 ml vials containing 500 mcg of lyophilized active ingredient and 10 mg of Mannitol, U.S.P. A separate 5 ml vial containing Sodium Chloride Injection, U.S.P is provided as a diluent.

Directions for reconstitution: Reconstitute the lyophilized sodium levothyroxine by aseptically adding 5 ml of the Sodium Chloride Injection, U.S.P. to the vial. Shake vial to insure complete mixing **Use Immediately** after reconstitution. Discard any unused portion.

U.S. Pat. 2,889,363

January 1975

Presidential Address

"There are men and classes of men who stand above the common herd; the soldier, the sailor, and the shepherd not infrequently; the artist rarely; rarelier still, the clergyman, the physician almost as a rule. He is the flower (such as it is) of our civilization; and when that stage of man is done with and only remembered to be marvelled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race. Generosity he has, such as is possible to those who practice an art, never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments; and what are more important, Heraclean cheerfulness and courage. So it is that he brings air and cheer into the sickroom and often enough, though not so often as he wishes, brings healing."[1]

I first read these lines from Robert Louis Stevenson when I was 15 years old. They seemed to me the finest expression I could imagine of what it would be like to be a physician — a noble tribute from a man whose own ill health made him well-acquainted with physicians. Many men have written about our profession, but Stevenson's "Dedication to *Underwoods*" seems to touch its heart as nothing else has. When Stevenson wrote these words, the physician could hardly be called a scientist, and his art was about all he had. Oh, he fought all right, and now and then he did win a victory over disease and death. I am sure he had few doubts about the small contribution he made to his patient's recovery, but this did not prevent his doing all he could whenever he could. He knew, as we still know, that he would eventually lose, but his Great Opponent would know that he had been in a good fight.

Perhaps we do indeed stand above the common herd, but because we are better than other men, for I think we are not; but because we have chosen to assume the obligations, responsibilities, and even the burden of bringing to men as much healing as we can. We have chosen to do this whenever we can, whenever we are called. We have chosen to make others more important than ourselves. I believe there is no greater honor that can be paid a physician than to be asked to see a mother's sick child, and to be trusted with her most precious possession, usually without question. I remember many years ago, during my internship, when I wondered what I was doing and whether I was really doing anything. As I looked out the clinic door, I saw a small, poorly-dressed mother walking in the Baltimore rain, carrying her child wrapped in a blanket. She was bringing her sick child, knowing that once she reached that door, everything would be all right. The great hospital and its doctors would do what was necessary. She and her sick child were why I was there, and I doubted only that I would be able to do all that she expected.

Our tradition is full of men who have lived this unselfish life to the utmost. A number of years ago I was sitting in my father's law office, when a recently-retired physician came in. He sat down to talk and tears began to appear in his eyes. When my father asked what was wrong, he looked up and said, "You know, Charlie, I never did go fishing." But I think we must go fishing from time to time. We need self-renewal in whatever form it may take.

One of the dangers we face is that of taking ourselves too seriously. Stevenson's remarks are heady stuff, and now and then we need a Montaigne, or even a Senator Chambers, to show us that we are not as beloved as we might like to be. Note what Montaigne says about us in his essay, "On the Resemblance of Children to their Fathers," written in 1580. "They actually make use of our getting worse, and do their business by this other means which can never fail them, which is to reward us, when the disease has become hotter by their prescriptions, with the assurance they give us that it would have become worse without their remedies . . . They need not worry about doing their job badly, since the damage turns to their profit. Truly they are right to require the full confidence of the patient; it must indeed be well-intentioned and very pliable to apply itself to notions, so hard to believe." It has also been said that "There is an occupational hazard in the practice of medicine that, if not guarded against, can do much harm. It is the temptation of doctors to think of themselves as individuals set apart from the rank and file of humanity. It is easy to understand how this temptation arises. Patients ask questions, and doctors supply the answers. Sometimes we get to feeling that we are entitled to an acquiescent, 'Yes, doctor,' from the whole human race on any matter whatsoever. We tend, like the Pharisee, to "thank God we are not as other men are!" We must remember that humility is a virtue we can never do without.

Medicine and physicians have been battered about for a number of years now, and there appears to be no let-up in the intensity of the attack. We have recently seen this very close at hand. We began nearly a year ago to develop what we thought would be a benefit to our patients and, incidentally, to ourselves. We saw a problem; we made a diagnosis; and we prescribed a treatment. What could be clearer and more honest than that? Oh, we knew there might be some people who would not totally understand our intentions, but we knew we could explain this to them, and, even though there might be some argument, we would eventually work out a fair compromise. Little did we know! But out of this, I believe we have developed a new sense of strength, a new attitude of effectiveness, a new skill in practical politics, and, above all, we have involved a very large number of physicians in a common cause. The result has been good, I think, and justifies our efforts. We have become aware of the arena in which significant medical decisions are made and will be made for a long time to come. We have discovered that we can still fight for a principle, and I believe that we have also discovered again that we do enjoy the trust and confidence of many people.

It might be said that I have been indulging us in self-praise, but such is not my intention. Rather, I hope that my remarks have helped to remind us that in spite of harpies that pick at us at every side, in spite of the efforts of little men to down-grade and eventually destroy us, in spite of the shocks that each day's news brings us, we have a heritage and a tradition that must remind us who we are, and what we must remain.

In the long history of man, there have been a few times when men of great courage, driven by an unyielding conscience, stood alone and refused to surrender to the evil forces about them. Is medicine now faced with the challenge and opportunity of doing just this? I believe it is. I believe that physicians are the only ones left whose traditions of free thought and investigation permit them the opportunity to preserve our society as we have known it. There is precious little freedom left in this world, and our profession in this country still holds a good share of it. We have assumed a commitment, and I hope we know that we have the strength to stand firmly on it.

This last event of the session is called the "Annual Distinguished Luncheon," and so it is. For several years, we have invited speakers of great ability and achievement, distinguished in their fields, to bring us their thoughts and experiences; but I believe the word "distinguished" properly applies to those who sit at the tables in front of us, those physicians who have spent a half-century serving sick people, trying to bring to them the best benefit they could. They are the ones we honor today and who remind us that medicine has a tradition which it cannot escape. We may talk about "doing something" about the present situation into which we are forced, but I do not belive that our conscience will let us actually implement these thoughts and fantasies. We are too close to the country doctor who forced his way through snowdrifts and over muddy roads to reach his patient to consider seriously striking against those patients. It is terrible to think of our being destroyed by mean and crafty men because we stand on this principle, but we are indeed trapped in a dilemma. I believe that our hope and our future lie in standing firmly on those principles by which medicine has operated so long and which we cannot betray. We must show by every good example that the welfare of our patients is indeed our paramount concern. We must show again that we will go the extra mile for them. Although most of us do not trudge through snowdrifts or drive over muddy roads, we can and will put forth that same effort in these days.

About the time I discovered Stevenson's "Dedication to *Underwoods*," I was priviledged to find the wonderful story, "A Doctor of the Old School" by Ian McLaren. This is a story of William MacLure, a doctor in Scotland in the 1890s. It is a short book, and its chapters tell some of the episodes of Dr. MacLure's struggles against the physical hardships of the Highlands, to bring as much healing as he could to the hardy people who depended on him more than they would admit. As it must to all of us, death came to William MacLure, and the last chapter describes the mourning of the Glen, as his patients and friends pay their final tribute to their doctor. Having fought their way through snowdrifts to reach the little village of Drumtochy, that they might carry him to his long-deserved rest, the men of the Glens stand around his grave. Lord Kilspindie speaks a tribute and says that he will erect a monument over the grave. He asks that the minister propose a suitable inscription —

"We thank you, Lord Kilspindie," said the minister "for your presence with us in our sorrow and your tribute to the memory of William MacLure, and I choose this for his text:

"Greater love hath no man than this, that a man lay down his life for his friends."

Milton was, at that time, held in the bonds of a very bitter theology, and his indignation was stirred by this unqualified praise.

"No doubt Dr. MacLure hed mony natural virtues, an' he did his wark weel, but it wes a peety he didna mak mair profession o' releegion."

"When William MacLure appears before the Judge, Milton," said Lachlan Campbell, who that day spoke his last words in public, and they were in defense of charity, "He will not be asking him about his professions, for the doctor's judgment hass been ready long ago, and it iss a good judgment, and you and I will be happy men if we get the like of it.

"It iss written in the Gospel, but it iss William MacLure that will not be expecting it."

"What is't, Lachlan?" asked Jamie Soutar, eagerly.

The old man, now very feeble, stood in the middle of the road, and his face, once so hard, was softened into a winsome tenderness.

"Come, ye blessed of My Father . . . I was sick, and ye visited Me."[2]

Warren Bosley, M.D.

References

1. Stevenson RL: *Underwoods* Chatto and Windus.
2. MacLaren, Ian, 1895, "A Doctor of the Old School," *Beside the Bonney Brier Bush*, Dodd Mead and Company.

In Memoriam

By medicine life may be prolong'd
yet death
Will seize the doctor too.
—Shakespeare

DR. EARL A. CONNOLLY

Doctor Earl A. Connolly died on April 1, 1976, at the age of 82. Doctor Connolly was born in Omaha, Nebraska, on October 21, 1893.

He graduated from Creighton University in 1914 and received his medical degree from Creighton University School of Medicine in 1918.

He joined Creighton's teaching faculty in 1919 and was named Emeritus of Surgery in 1964.

He is survived by his widow, Gertrude; sons, Dr. John of Irvine, California; Dr. Edward of New Orleans; James P. of Omaha; a daughter, Mrs. James Ryan of Pasadena, California; a brother, James, of Los Angeles; and 11 grandchildren.

DR. BERT E. MORROW

Doctor Bert E. Morrow died on March 20, 1976, at the age of 94. Doctor Morrow was born in Murray, Nebraska, on April 26, 1881.

He graduated from Lincoln Medical College in 1905.

After initially practicing in Seward, he practiced in Funk, Nebraska for five years. He returned to Seward County in 1911 and practiced at Bee for two years before returning to Seward.

He is survived by his son, Warren; his daughter, Mrs. Russell (Janet) Souchek; two daughters-in-law, Mrs. Evelyn Morrow and Mrs. Elaine Morrow; nine grandchildren; and three great-grandchildren; other relatives and a host of friends.

DR. JOHN H. MURPHY

Doctor John H. Murphy died on April 8, 1976, at the age of 87. He was born in 1889.

Doctor Murphy graduated from Creighton University School of Medicine in 1915.

He was presented his fifty-year certificate by the Nebraska Medical Association in 1965 and was awarded life membership in the Nebraska Medical Association in 1966.

DR. THEODORE A. PETERSON

Doctor Theodore A. Peterson died on March 29, 1976, at the age of 76. Doctor Peterson was born in Phelps County on June 27, 1899.

He graduated from the University of Nebraska in 1923 and received his medical degree from the University of Nebraska School of Medicine in 1925.

Doctor Peterson had practiced medicine in Holdrege since 1926, retiring five years ago.

He is survived by Mrs. Peterson, his wife; two sons, Ted, a chest surgeon and Ron, an orthopedic surgeon, both in Minneapolis, Minnesota; and a third son, a nuclear engineer in Seattle, Washington.

DR. JOSIAH B. REDFIELD

Doctor Josiah B. Redfield died on March 16, 1976, at the age of 93. He was born in Omaha, Nebraska, on August 23, 1882.

He attended Hodgmans Academy at Lincoln and received his medical degree from the University of Nebraska College of Medicine in 1908.

Doctor Redfield practiced medicine for over sixty years and served as the North Platte city physician for over fifty years.

He is survived by his widow, Casie; three grandchildren, four great-grandchildren; and a grandniece, Marta Jo Redfield of San Jose, California.

DR. E. BURKETT REED

Doctor E. Burkett Reed died on April 3, 1976, at the age of 76. Doctor Reed was born in Lancaster County on January 4, 1900.

He graduated from the University of Nebraska in 1923 and received his medical degree from the University of Nebraska College of Medicine in 1925.

He practiced internal medicine for more than 50 years at the Lincoln Clinic.

Doctor Reed served as President of the Lancaster County Medical Society and served on several NMA committees.

He is survived by his wife, Lora H.; a son, Dr. John L. Reed of Lincoln; daughters, Mrs. Ted Barger of Atherton, California, and Mrs. T. E. Vollinger of Libertyville, Illinois; a brother, A. W. Reed of Lincoln; and 10 grandchildren.

DR. LYNN E. SHARRAR

Doctor Lynn E. Sharrar died on April 8, 1976, at the age of 70. He was born in Hooper, Nebraska, on June 3, 1905.

He graduated from the University of Nebraska in 1927 and received his medical degree from the University of Nebraska College of Medicine in 1931.

Doctor Sharrar had practiced medicine in Lincoln since 1934.

He is survived by his wife, Mary Ellen; daughters, Auralea of Denver and Mrs. Tom (Mary Jo) Rodeno of Pittsburgh, Pa.; brothers, Clyde of Omaha and Paul of Lincoln; and two grandchildren.

Between Cases

Statistical Department.

1,000 people around the world commit suicide every day, and 10,000 try it.

On Titles.

The official name of Medicaid is Medical Assistance.

Were What?

The lungs were to percussion and auscultation.

On Doctors.

. . . the students regarded the M.D. as the only legitimate doctor's degree in the universe. To them, a Ph.D. stood for 'phony doctor.'

Asimov: Tales of the black widowers.

Quote Unquote.

A person cannot make another happy, but he can make him unhappy.

Szasz.

On Appointments.

For though they be with sorrow
Appointments must be kept.

Sylvia Warner.

On Therapy.

To walk through the forest for months, to know no other care than to get better!
Just as a dog goes to search for some mysterious grass that will save him.

Alexander Solzhenitsyn: Cancer Ward

More From The Statistical Department.

More than 80,000 Americans have had the saphenous vein bypass graft.

Words We Can Do Without.

Torpor, hematochezia, structuralization, governance, rigidify, painfulness.

On Acute Hearing.

1. He can hear anything; he has x-ray ears.
2. I can hear the grass grow.

The Steno.

Right ear's disease.

Quote Unquote.

Few hospitals, in New York at least, possessed as many as six artery clamps in 1880.

Halsted.

Department Of Deadly Diseases.

The mortality rate rose to 300 percent.

The Physical.

There is some enlargement and atrophy of the quadriceps.

On Finishing Medical School.

Like graduation ceremonies where you heard all those words about what lay ahead, then you went out and nothing happened.

Andre Dubus: Separate flights.

True.

Autopsy is a dying practice.

Anon.

Medicine And Money.

The health bill for the United States in 1975, including aspirin and craniotomy and everything in between, amounted to $118.5 billion.

On Diagnosis.

Don't touch the patient — state first what you see; cultivate your powers of observation.

Osler.

On Thanatology.

My uncle had been a small man all his life, and death makes you even smaller.

Sevela: Legends from invalid street.

What Does It Mean?

Gubernaculum: a guide.

On References.

You came to the right man: I don't know.

Jerry Bumpus: Things in place.

—F.C.

Picture Gallery At the Annual Session, 1976, of the Nebraska Medical Association.

Board of Councilors in session.

Doctor Harry W. McFadden, Jr., Speaker of the NMA House of Delegates.

NMA Legal Counsel, Mr. Flavel A. Wright, addressing NMA House of Delegates.

Senator Loran Schmit addressing NMA House of Delegates.

Senator Loran Schmit addressing NMA House of Delegates.

NMA President, Doctor Warren G. Bosley, presiding at the Medicine and Religion Dinner.

Chaplain Al E. Anderson speaking at the Medicine and Religion Dinner.

Chaplain Al E. Anderson speaking at the Medicine and Religion Dinner.

Auxiliary President, Mrs. Y. Scott Moore, addressing NMA House of Delegates.

NMA Policy Committee Member, Doctor Frank P. Stone, reading Necrology.

Our Medical Schools

Quinidine research.

A drug which has been used since the 1940s to control rhythm disturbances of the heart is finally being understood through research at the University of Nebraska Medical Center.

Dr. Barry Dzindzio, assistant professor in the center's Division of Cardiovascular Medicine, and Dr. Clarence Ueda, acting chairman of the Department of Pharmaceutics, have determined the nature and a means for measuring individual doses of quinidine, the first drug used to treat cardiac arrhythmias.

Up to now physicians had been unable to determine how much quinidine was effective for their patients because of the drug's impurities, said Dr. Dzindzio. He said impurities may account for 5 to 25 percent of quinidine, derived from the South American cinchona tree.

Dr. Dzindzio said the only way a physician could know if he had given the right amount was if his patient's arrhythmias stopped.

A more reliable way of administering quinidine was found by Drs. Dzindzio and Ueda through a four-month research project. Dr. Ueda first developed a way to separate the impurities from quinidine.

The drug was given to 11 patients with cardiac arrhythmias at University Hospital. By monitoring their arrhythmias while taking blood and urine samples, Drs. Dzindzio and Ueda were able to determine the amount of quinidine in the patients' bodies at the time their arrhythmias were controlled.

Pediatric oncology gift.

The Pediatric Oncology program at the Creighton University School of Medicine has received a financial boost through the generous donation by a York, Nebraska, woman.

Mrs. Beth Coon has presented Dr. David J. Gnarra, Director of Pediatric Hematology-Oncology, with a $10,000 check in memory of her infant daughter, Keri, who died last March. Dr. Gnarra said the money will be used for clinical investigation and basic research in the treatment of tumors and blood diseases in children.

The Pediatric Oncology program was developed last July by Dr. Gnarra, who is a member of a study group with representatives from 12 Midwestern Medical Centers. The group meets quarterly and shares in consultation and research efforts.

Dr. Gnarra and other members of the study group are approved clinical investigators by the National Cancer Institute and have the approval to use investigational drugs. The National Cancer Institute estimates that about 50 percent of pediatric patients with malignant diseases are not being treated by trained specialists.

There are now about 20 children under treatment in the program.

WashingtoNotes

PSRO.

The Administration has submitted an "encouraging report" to Congress on the Professional Standards Review Organizations (PSRO) program, but confessed at the same time that lawmakers should not expect too much in the way of cost savings.

Louis Hellman, MD, head of the Health Services Administration, said in the 203 designated PSRO areas there are 65 conditional organizations performing review and another 55 in the planning stage. By the end of the fiscal year, 120 conditional PSROs will be in operation reviewing some 3 million hospital admissions, he said. More than 106,000 physicians are now members of organized PSROs. Dr. Hellman said the primary purpose of the PSRO program is quality assurance and that cost-effectiveness was a secondary objective.

Proposed regulations.

Legislation requiring the government to give affected parties more rights to challenge and make recommendations on proposed federal regulations has been endorsed by the AMA.

Specifically backed were bills introduced in the House by Rep. Thomas Kindness (R-Ohio) and in the Senate by Sen. Charles Mathias (R-Md.) providing remedial changes in the Administrative Procedures Act aimed at opening up regulatory procedures to assure that the government doesn't overstep Congressional intent or ignore it.

Laboratories.

The Senate has passed 64-11 a bill broadening federal authority over clinical laboratories to include those engaged in intrastate operations and giving the government firmer standards control.

Under the legislation, HEW theoretically could apply the controls to individual physicians' offices. The pertinent provision states that the HEW Secretary may exempt such offices; physicians who use their offices as labs as an adjunct for treating their own patients would have to describe the qualifications of nonphysician personnel who do lab work, how much they do, and the score each shows in any proficiency testing.

Sen. Carl Curtis (R-Neb.) complained that "here the government is reaching down to the country physician's office . . . I say that we are removing from people the medical services that our society now provides by giving the federal government jurisdiction over them."

The bill, which now goes to the House where similar legislation is before the House Health Subcommittee provides:

**Federal licensing of all clinical laboratories. HEW would set standards and enforce them itself or delegate enforcement to states having statutory programs meeting federal criteria. Private nonprofit accrediting groups could be used to help enforce standards if they meet federal requirements but no exemption from licensure to privately accredited laboratories is provided.

**An advisory council with membership set at 12 persons, to include representatives of nationally recognized laboratory-accrediting bodies, directors of state laboratory-licensing programs, members of the public, and not more than three persons who are owners, operators, or directors of laboratories.

**HEW is authorized to waive for 2 years personnel standards for laboratory technicians employed in hospitals with fewer than 100 beds if located in a rural area.

**An office of clinical laboratories to administer one set of uniform standards.

**HEW may issue no license unless it has received from the applying laboratory "an accurate, itemized schedule of all current rates charged by the applicant for those laboratory services . . . and such other information as may be necessary, including full disclosures of any current contractual relationships, written or oral, between the applicant and physician respecting such services."

**Laboratories found to be engaging in illegal financial abuses would be subject to revocation of licenses.

National health insurance.

A Rand Corporation study says the amount people would have to pay in taxes under the disparate national health insurance (NHI) proposals before Congress wouldn't vary much and suggested this opens the door to compromise.

The old Nixon Administration bill and the defunct Kennedy-Mills bill each would require total tax revenues of some $45 billion to fund the health care of people under 65. The Rand team said the labor-supported Kennedy-Corman proposal would require $68 billion, and the Long-Ribicoff bill, $16 billion.

Financed by payroll and income taxes but requiring no payments to hospitals or doctors by patients, the Kennedy-Corman bill, despite its higher cost, would impose virtually the same total cost for health care on families earning under $15,000 as the Administration and Kennedy-Mills bills, the report said.

But to raise the extra $23 billion it would cost, the Kennedy-Corman bill would impose sharply increased taxes on upper income families — as much as $1,000 a year more than under the Administration and Kennedy-Mills bills for a $40,000-a-year family.

Kennedy-Corman & the Teamsters.

One of the nation's most powerful unions — the Teamsters — backed away from support for the Kennedy-Corman bill to federalize national health care.

A high Teamsters official told a national health conference that "we have become increasingly distressed . . . by the possibility that a National Health Insurance plan which runs all of the money for the purchase of health care through the federal government, such as the Health Security Act (Kennedy-Corman), might be adopted . . . we cannot support a program that gives the federal government total control over financing and delivery of health care," said Daniel Shannon, Teamsters Executive Director of the Central States, Southeast and Southwest areas, Health Welfare and Pension Fund.

New research commission.

The Senate has passed legislation establishing a Presidential Commission to review all biomedical and behavioral research done by the government.

The Presidential Commission would replace an existing commission now working in the Department of Health, Education and Welfare. It would consist of 11 members from the fields of law, ethics, theology, the sciences, and health administration.

Medical devices.

Federal control of medical devices similar to its present authority over drugs has been passed by the Congress into law, capping a ten-year campaign by the government.

Custom devices ordered by physicians for individual patients are exempt in most cases.

Controversy in the past has erupted over intrauterine devices and cardiac pacemakers, among others.

The general aim of the legislation is to prevent public marketing of devices that are not reliable or safe. FDA has always had the power to move against unsafe devices after the fact.

The three classifications are:

**General controls — record and report keeping, good manufacturing practices, registration of manufacturers, prohibition of misbranded or adulterated products.

**Performance standards — standards will be set by the government.

**Premarket approval — covers implanted devices or those considered to be life sustaining or supporting. Devices not intended to remain in the body more than 30 days in general would not be considered implanted devices. Devices with a long history of safe use such as dental devices, bone screws and hip pins would not fall in this group.

New from Lilly/Dista Research

NALFON®

fenoprofen calcium

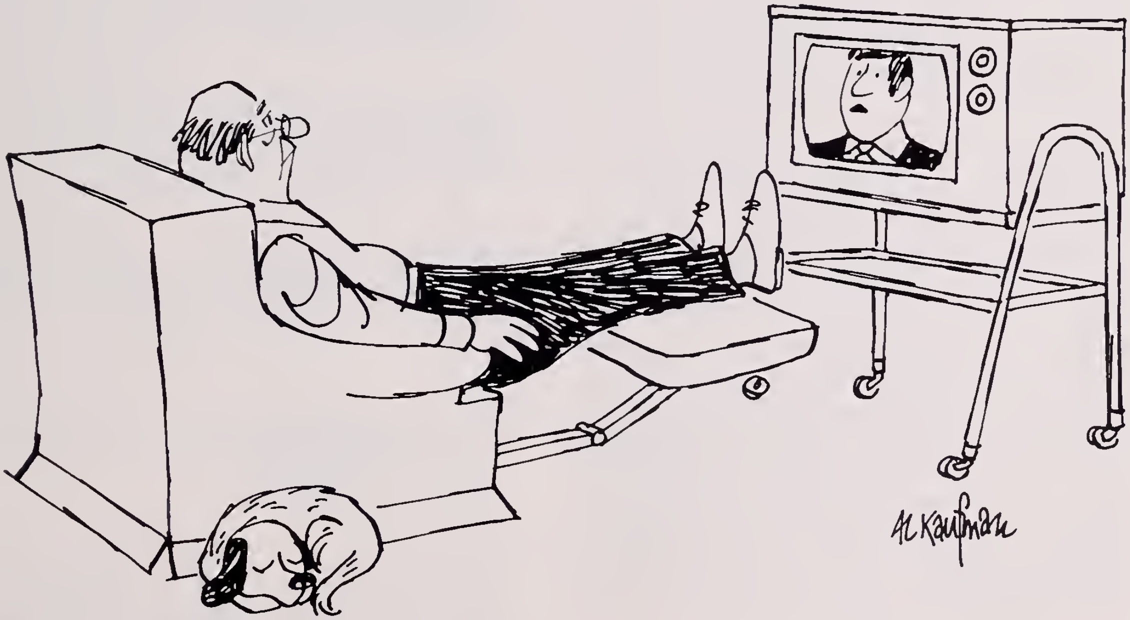
300-mg.* Pulvules®

DISTA

Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46206

Additional information available to the profession on request.

*Present as 345.9 mg. of the calcium salt of fenoprofen dihydrate equivalent to 300 mg. fenoprofen.



"The following bulletin is for people with a systolic blood-pressure of 130 or lower."

The FDA has divided devices into distinct categories:

orthopedics; cardiovascular diseases; dentistry; anesthesiology; obstetrics and gynecology; gastroenterology; urology; radiology; neurology; ear, nose, and throat disorders; ophthalmology; plastic and general surgery; physical medicine; clinical pathology; and general and personal use.

Social Security.

The financial outlook for Social Security remains precarious, the Trustees of the system have reported to Congress. They predict Social Security will be running in the red for many years unless Congress moves swiftly to increase the tax.

The actuarial shakiness of the Social Security system and public and Congressional resistance to increasing the Social Security tax bite have severely damaged prospects for sweeping National Health Insurance proposals based on Social Security financing.

The trust funds for Old Age and Disability Benefits will decline by $4.3 billion this year, instead of the $5.8 billion predicted in a 1975 report.

The report covers the four trust funds established for Social Security programs, including the Old Age and Survivors trust funds, disability insurance, and Medicare hospital and supplemental insurance.

CVD.

President Ford has told Congress that deaths from coronary heart disease, stroke and hypertension continue to decline. The third annual report of the National Heart and Lung Institute which Ford sent to Congress said that the new initiatives undertaken since 1972 provide "encouraging programs in the fight against heart, blood vessel, lung, and blood diseases."

Coming Meetings

CRIPPLED CHILDREN'S CLINICS —
July 17 — Chadron, Elks Lodge
July 24 — Scottsbluff, St. Marys Hospital
August 14 — Norfolk, Elks Lodge

THE AMERICAN CANCER SOCIETY AND NATIONAL CANCER INSTITUTE — National Conference on Cancer Research and Clinical Investigation at the Chase-Park Plaza Hotel in St. Louis, Missouri, September 20 through 22, 1976. The purpose of the conference is to present important developments in basic cancer research and to demonstrate the relationship of this work to clinical investigation and to the changing concepts of optimal patient care. For further information, write to: American Cancer Society, Nebraska Division, 6910 Pacific Street, Omaha, 68106.

NEBRASKA MEDICAL ASSOCIATION FALL SESSION — September 30 - October 1 & 2, 1976, Lincoln Hilton Hotel, Lincoln, Nebraska.

AMERICAN MEDICAL ASSOCIATION — 30th Clinical Convention, December 4-8, 1976, Philadelphia, Pennsylvania.

NEBRASKA MEDICAL ASSOCIATION ANNUAL SESSION — May 1-4, 1977, Holiday Inn, Omaha, Nebraska.

AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 18-23, 1977, San Francisco, California.

POSTGRADUATE EDUCATION FOR PEDIATRICIANS AND OBSTETRICIANS — The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate programs for pediatricians and obstetricians in the field of Maternal and Child Health and Family Planning. Program areas available at the present time include nine-month programs in Maternal and Child Health, in the Health of the School-Age Children and Youth, and Day Care and the Preschool Child. Twenty-one month programs in Care of Handicapped Children and Comprehensive Health Care, and a thirty-three month program in Perinatology are also available. These programs all lead to the degree of Master of Public Health, and tax-exempt Fellowship support is available. Applications are now being accepted for the group entering September, 1977. For information, write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

COLONOSCOPY TRAINING PROGRAM — The New York Society for Gastrointestinal Endoscopy supported by a Cancer Control Grant from the American Cancer Society, will now offer two week training programs in the techniques of fiberoptic colonoscopy for the detection and management of colonic neoplasm to qualified physicians and surgeons. The training program will be conducted at several institutions in New York City. Preference will be given to those physicians and surgeons who have had previous experience with fiberoptic endoscopy and who are from community where fiberoptic colonoscopy is not yet readily available. Please send curriculum vitae to: Paul Sherlock, M.D., Chief Gastroenterology Service, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, New York 10021.

The Letter Box

To the Editor:

The following is information on a continuing education program sponsored by Creighton University School of Medicine for inclusion in the July NEBRASKA MEDICAL ASSOCIATION:

Aug. 25-27 — **Coronary Care and the Practicing Physician.** Sponsored by the Department of Medicine, Div. of Cardiology. To be held at the Creighton University Health Center, 10th and Dorcas, Omaha, Nebr. Credit: 19.5 hours in Category 1 of the AMA; AAFP credit pending.

Thank you.

Sincerely,
Hattie DeLapp
Coordinator of
Continuing Education

To the Editor:

2nd Annual Mid-American Breast Cancer Symposium, to be held November 5-6, 1976 convened in honor of Dr. Robert Egan, Pioneer mammographer.

WORKSHOPS: Screening, Thermography, Mammography, Xerography, Pathology, and Surgery.

FEATURE SPEAKERS:

Dr. Robert Egan	Dr. Harold Isard
Dr. Ray Lawson	Dr. Phillip Strax
Dr. Robert Hutter	Dr. C. B. Esselwyn
Dr. Myron Moskowitz	Dr. N.J.M. Aarts

This meeting will be held at the Concourse Hotel in Madison, Wisconsin and is sponsored by The Wisconsin Breast Cancer Detection Foundation, Inc.

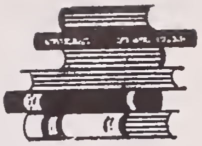
For information write: 7803 Mineral Point Rd., Madison, Wisconsin 53717, 608-831-2300.

12 Credit hours in Category 2 for the Physicians Recognition Award of the AMA.

The Wisconsin Breast Cancer Detection Foundation is a non-profit organization dedicated to the early detection of breast cancer. This is an education program.

Sincerely,
William B. Hobbins, M.D.
Conference Co-Ordinator

Books



Books reviewed.

A coronary event; by Michael Halberstam and Stephan Lesher; 208 pages; hard cover $8.95; published 1976 by J. B. Lippincott Co., Philadelphia & New York.

Stephan Lesher, a successful reporter, had a heart attack, and Michael Halberstam, M.D., treated it. The chapters are written almost alternately by the patient and the doctor. Mr. Lesher tells exactly just how it felt, and he includes the beginning, the hospital and posthospital course, and the outcome. Dr. Halberstam writes from his own point of view; and while they both describe the disease and its story, each writes of himself and of the other.

What the patient wants to know is: What happened? Why me? Will I be all right? Can I go back to work? And he asks, over and over, about sex, and about exercise, and asks When? about everything.

There is soul-searching and analysis. The patient asks questions; that is his business. And he talks about doctors and what he doesn't like about us. The doctor talks about patients.

The book is exceptionally well written, and I read every word of it. You do, too. I recommend it.

—F.C.

Correlative neuroanatomy & functional neurology, by Joseph G. Chusid, M.D.; 448 pages; limp cover $10.00; published 1976 by Lange Medical Publications, Los Altos, California.

This book is in its 16th edition, and seems to have appeared first in 1938; it comes out every three years now, and there are Italian, Japanese, Spanish, Portuguese, and Polish editions. There are 35 chapters, an appendix, and an index. There are figures and tables throughout the text. I could not find references, but the appendix contains a three-page list of selected reference textbooks.

The print is good, and reading is easy. The writing is good, and the subject matter is up-to-date. The illustrations are particularly good, especially where the reader is shown how to test for reflexes and for muscle damage.

It is well worth the ten dollars.

—F.C.

Principles of clinical electrocardiography; by M. J. Goldman, M.D.; 412 pages + two inside covers; limp cover, $9.50; published 1976 by Lange Medical Publications, Los Altos, California.

This book has appeared in Spanish, Japanese, Italian, and Polish versions, and is now in its ninth edition, having first been published in 1956. There are 21 chapters, and both a first and a second appendix. The print is good, there is a fine index, and there are figures on almost every page.

The book was last revised in 1973. In the new edition, discussions of sick sinus syndrome, bradycardia-tachycardia syndrome, and accelerated idioventricular rhythm have been added; and the section on pacemakers has been expanded.

The section on interpretation of the EKG shows 84 tracings, with explanations and diagnoses and text references. The first appendix reviews the normal EKG and common abnormalities, and the second appendix has illustrations of 83 tracings, showing abnormalities and diagnosis of the adult twelve-lead EKG; it also includes an adequately large list of references.

The author is Clinical Professor of Medicine at the University of California School of Medicine. The book is recommended.

—F.C.

Medicinews

S.S. benefits up.

HEW Secretary David Mathews has announced that social security benefits and supplemental security income payments will increase automatically by 6.4 percent beginning with the checks beneficiaries receive in July.

Under the law, social security and SSI checks increase automatically when the Consumer Price Index rises by 3 percent or more over specified measuring periods.

"A comparison of the average monthly CPI in the first quarter of 1975 to that of the first quarter of 1976, which is the measuring period for the 1976 benefit increase, shows a 6.4 percent increase in the CPI. This increase requires an automatic 6.4 percent increase in social security and SSI payments," the Secretary said.

"A 6.4 percent increase reflects a welcome moderation in the rate of inflation. I am sure that the larger benefit checks also will be welcomed by social security and SSI recipients," the Secretary said. The 1975 automatic increase was 8 percent.

The increase in social security benefits will take effect for the month of June and will be reflected in the checks the 32.6 million beneficiaries receive July 3. The SSI increase takes effect in July and is payable to the 4.4 million recipients beginning with the July 1 SSI check.

Other automatic increase provisions in the law determine the maximum amount of earnings that are taxable for social security each year, and the amount people in retirement can earn each year and still get all their social security checks. Automatic increases in these amounts are announced by November 1 and are effective the following year.

The Secretary said the fiscal year 1977 cost to the trust funds of the social security benefit increase will be $5 billion. The SSI increase will cost $315 million and will be paid from general funds of the Treasury.

The Secretary said that SSI recipients who live in States that pay a State supplement as part of the Federal SSI checks will get a higher SSI check only if the State acts to pass along the higher Federal payment.

Regulatory Agencies - "Sunset" law.

Colorado has become the first state in the nation to enact a "sunset" law. In essence the law provides a system for the periodic review and termination, continuation, or re-establishment of state regulatory agencies by the state legislature. Periodically, state regulatory agencies will have to demonstrate their need and usefulness to the legislature; otherwise, they will automatically be terminated.

The introductory language in the statute states that "the General Assembly finds that state government actions have produced a substantial increase in numbers of agencies, growth of programs, and proliferation of rules and regulations and that the whole process developed without sufficient legislative oversight, regulatory accountability, or a system of checks and balances. The General Assembly further finds that by establishing a system for the termination, continuation, or reestablishment of such agencies, it will be in a better position to evaluate the need for the continued existence of existing and future regulatory bodies." (HB 1088, Laws 1976)

"Sunset" bills are currently pending in Illinois and Minnesota.

REPORTS OF OFFICERS, DELEGATES AND COMMITTEES

ANNUAL SESSION

May 2, 3, and 5, 1976

(These reports appear as originally submitted. For the House of Delegates deliberations, possible changes, and final action, refer to the minutes which follow these reports.)

REPORT OF THE BOARD OF DIRECTORS

Charles F. Ashby, M.D., Geneva, Chairman; Robert B. Benthack, M.D., Wayne; Dwight W. Burney, Jr., M.D., Omaha; Robert J. Morgan, M.D., Alliance; Russell L. Gorthey, M.D., Lincoln.

The Board is pleased to report that the Association operated in the black in 1975 and carried a balance of $62,402; however, portions of this balance represent cash received in 1975 for 1976 AMA dues and NMA assessments in addition to operating cash. The 1975 budget of $153,367 was exceeded by approximately 5%. A budget of $188,296 has been approved for 1976. Our projection of income for this year indicates we can again expect a surplus of income over expenditures. This is due primarily to the modest dues increase of $20 that went into effect in January of this year.

Increased Association activity, overhead and personnel for the Headquarters Office are the primary factors affecting the increased budget and they are not dissimilar to the costs other organizations face in these inflationary times.

The production of the Nebraska Medical Journal continues at its usual high level of quality. As the Board has reported on a number of occasions, increased costs incurred by the Journal result in a deficit activity. The costs recommended by our Auditor are reflected in Schedule B-2 of the Audit relating to the Journal. We are still subject to an increasing competitive market for the advertising dollar and there appears to be no relief in this category for the immediate future. The Board again wishes to recognize Dr. Frank Cole for his efforts as Editor of the Journal.

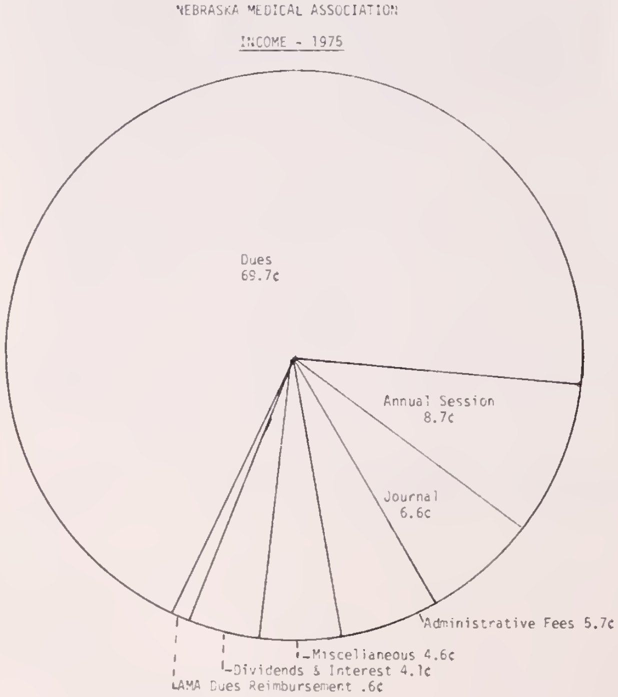
The investment reserves has reflected an increase during 1975 from several sources. First, the investment portfolio responded to the late rally of the stock market in December, and surplus cash was invested in short term notes. Our investments compare to approximately 60% of our yearly expenditures and this position should be enhanced with certain unused funds that will accrue to the investment fund this year. The Board has approved some changes in our portfolio as recommended by our investment counsel and these should reflect an increase by the end of 1976.

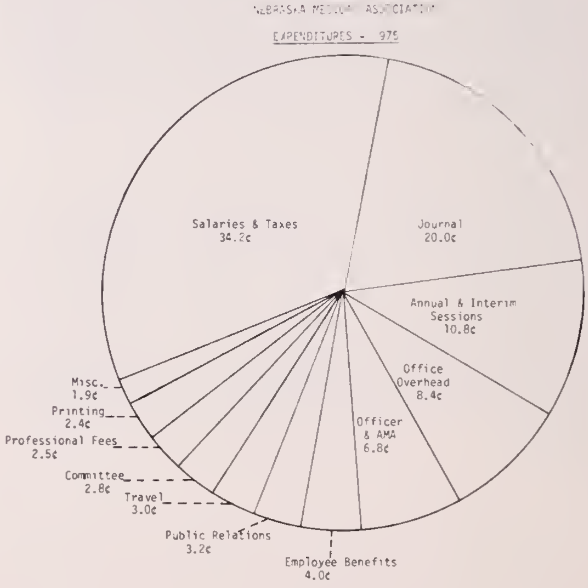
We are also pleased to report that membership continues to maintain an upward trend each year. This is an important factor in financial stability.

The Board calls attention to the 1975 Annual Audit which precedes this report. We believe it adequately demonstrates the several categories of the Association's financial activity and presents an accurate picture of our financial status.

In conclusion, the Board feels that the current funding is adequate to meet the needs of the Association for 1976. Please note the data regarding income and expenditures plus the membership breakdown accompanying this report.

Respectfully submitted,
CHARLES F. ASHBY, M.D.
Chairman





1976 COUNTY SOCIETY MEMBERSHIP

[As of April 15, 1976]

Figures shown ( ) indicate 1975 membership

County	State & AMA		No AMA		Life		Totals		1976 Delinquent
Adams	26	(26)	10	(13)	5	(6)	41	(44)	1
Antelope-Pierce	8	(9)			1	(1)	9	(10)	1
Boone		(3)						(3)	2
Box Butte	8	(7)	1	(1)	1	(1)	10	(9)	
Buffalo	29	(32)	13	(10)	4	(5)	46	(47)	
Butler			5	(5)			5	(5)	
Cass	2	(3)	3	(2)	1	(1)	6	(6)	
Cheyenne-Kimball-Deuel	8	(11)	2				10	(11)	
Cuming	2	(2)	2	(2)			4	(4)	
Custer	3	(4)		(1)	1	(1)	4	(6)	1
Dawson	11	(13)	1		1	(1)	13	(14)	1
Dodge	17	(17)	5	(8)	4	(4)	26	(29)	
Five	7	(7)	2	(1)	1	(1)	10	(9)	
Four	4	(2)	3	(5)			7	(7)	
Gage	11	(11)	5	(6)	4	(4)	20	(21)	
Hall	28	(30)	13	(14)	3	(2)	44	(46)	1
Hamilton	4	(1)	3	(6)	2	(2)	9	(9)	
Holt & Northwest	11	(9)	3	(5)			14	(13)	2
Howard	2	(2)			1	(2)	3	(4)	
Jefferson	6	(6)		(1)			6	(7)	
Knox	3	(3)	2	(1)	1	(1)	6	(5)	
Lancaster	156	(178)	64	(45)	25	(28)	245	(251)	6
Lincoln	10	(12)	18	(17)	4	(4)	32	(33)	2
Madison	20	(22)	5	(1)	5	(5)	30	(28)	1
Northwest	10	(11)	4	(2)	1	(1)	15	(14)	
Omaha	426	(464)	126	(134)	50	(54)	602	(652)	53
Stanton	1	(1)					1	(1)	
Otoe	8	(7)	4	(3)	2	(3)	14	(13)	
Perkins-Chase	5	(5)					5	(5)	
Phelps	3	(5)	3	(2)	1		7	(7)	1
Platte	16	(17)	5	(6)	1	(1)	22	(24)	
Saline	6	(6)					6	(6)	
Saunders	4	(5)					4	(5)	
Scotts Bluff	29	(34)	18	(15)	1	(1)	48	(50)	
Seward	8	(8)	1	(1)	1	(1)	10	(10)	
South Central	3	(5)	2	(3)			5	(8)	
Southeast	9	(10)	5	(5)	2	(2)	16	(17)	
Southwest	15	(17)		(1)	3	(1)	18	(19)	
Washington-Burt	7	(6)	2	(4)	3	(3)	12	(13)	
York	5	(7)	4	(2)			9	(9)	
TOTALS	931	(1018)	334	(322)	129	(135)	1394	(1475)	72

% of Total Membership

Omaha	43.2%
Lincoln	17.6%
Out State	39.2%

1976 STUDENT AND HOUSE OFFICER MEMBERSHIPS

	U of N	Creighton	Misc.	Total
Student Members	30	15		45
House Officer Members	12	3	5	20

AGE BREAKDOWN OF NON-A.M.A. MEMBERS

Age Group	Omaha	Lincoln	Out-State	Total
Under 40	30	19	35	84
40-50	42	16	42	100
51-60	37	17	30	84
61-69	10	4	24	38
70 & Over	5	3	7	15
No Age Available	2	5	6	13
TOTALS	126	64	144	334

Following are the number of members upon which the number of Delegates to the A.M.A. are based:

	State & AMA	State Only*	Service	Life	Total
1971	1222	11	2	. . .	1235
1972	1041	13	1	125	1180
1973	1004	11	1	124	1140
1974	1067	13	1	131	1212
1975	1018	24	.	135	1177
1976	931	14	.	129	1074

*Eligible for dues exemption in A.M.A. because of age, disability, etc.

REPORT OF DELEGATE TO A.M.A. — CLINICAL MEETING

I. REFERENCE COMMITTEE ON AMENDMENTS TO CONSTITUTION AND BYLAWS

Report B — Size of House of Delegates

The amendment adopted. Eliminates change in the apportionment of delegates from the state associations when the membership reaches 250.

Report C

A previous action which permitted a delegate to take office either on January 1st or July 1st was rescinded.

II. REFERENCE COMMITTEE A

Report K — Board of Trustees on PSRO Moratorium

The report rejected a moratorium but emphasized enactment of PSRO amendments submitted to Congress by the AMA.

Resolution 26

Substitute resolution called for the establishment of liaison between Council on Medical Service and American Association of Professional Standards Review Organizations. Adopted.

Resolutions 2 and 6.

Government Review Programs. Substitute resolution adopted, supporting right of individual physician not to participate in the government review program which conflicts with principles of good medical practice.

Resolution 11.

Compensation for Utilization Review. Amended resolution approved of compensation for physicians in conducting utilization review of in-patient care; that the cost be included in hospital rates; that the Blues and other insurance carriers be asked to pay for their fair proportion of utilization review costs. Adopted.

Report D of Council on Medical Service Regarding Distribution of Physicians Due to Medicare and Medicaid Reimbursement Policy

This was an interim report. It reaffirmed the existing AMA policy that all physicians are to be reimbursed on the basis of their usual, customary and reasonable fee. The report outlined examples of difference in fee schedules between urban and rural areas, but found no relationship to the distribution of physicians on the basis of these fees. A final report will be given at the 1976 Annual Session.

Resolutions 25, 37, and 40.

Called for correcting an adverse impact of the economic index limit on Medicare prevailing charges initiated by Section 224, Public Law 92-603. A substitute resolution calling for the Association to take all appropriate action to seek reimbursement on the basis of usual, customary and reasonable charges was adopted.

Report A — Council on Medical Service

HIDOC. This report outlines objections made to government officials in the use of the term HIDOC, to indicate high income doctor. The AMA was assured that there would be no further use of the term.

Section F — Council on Medical Service

Medicaid. The AMA will seek modification of Section 1903 of the Social Security Act which requires that a Medicaid statement of benefits paid must be sent to each patient for each service rendered. Adopted.

Report A of Board of Trustees

Shortage in Rural Areas. This is a progress report made on alleviating health manpower shortage in rural areas; opposition to legislative efforts to conscript physicians for service in shortage areas. It calls for state associations and component medical societies to work with local health planning bodies. Adopted.

Report H of Council on Medical Service

This report outlines the Association's present health insurance posture on the private and legislative fronts regarding high risk individuals, the temporarily unemployed, and catastrophic illness. It opposes free standing insurance in these categories. Adopted.

Resolution 47

Designation of Primary Care Specialties. This called for the designation of internal medicine, family practice, pediatrics, and obstetrics-gynecology as primary care physicians. It was referred to the Council on Medical Service for consultation with various medical specialty societies and a report to be made in June, 1976.

III. REFERENCE COMMITTEE B

Resolution 1.

PSRO. Amended resolution calls for passage of AMA amendments to the PSRO law and that each state medical association be notified of AMA efforts.

Resolution 53.

Support of HR 10301. This reaffirms support of AMA developed bill HR 10301 which curtails administrative rule making through the Federal Register. Asks component medical societies for support. Adopted.

Report BB — Board of Trustees.

PL 93-641. This report describes PL 93-641, the National Health Planning and Resources Development Act, and the AMA's effort to modify the act. It also calls for the AMA to initiate litigation at such time as seems appropriate to challenge the constitutionality of this act. Adopted.

Report O — Board of Trustees

Catastrophic Insurance and Resolutions 21 and 36. Substitute resolution 36 (Nebraska Resolution) called for the AMA to make it clear that its National Health Insurance act HR 6222 is a national health program and is based on the purchase of private health insurance. Report O of the Trustees asks the AMA to create a task force to meet with representatives of the insurance industry for the purpose of formulating private catastrophic insurance plans; in addition it asks private insurance sector to advertise availability of these plans and asks HEW to do the same. Adopted.

Resolution 10.

Social Security. An amended resolution asked the AMA to take steps to change the method of calculation of average earnings used in determination of Social Security benefits for physicians, so that average earnings reflect the years since 1965. Adopted.

Resolution 13.

Cabinet Post on Health. The resolution called for AMA to support a cabinet-level Department of Health, headed by a physician. Adopted.

Resolution 16.

Freedom of Choice, etc. AMA re-endorsed a system of free market medicine based on freedom of choice for both patient and physician as well as fee-for-service and confidentiality. Adopted.

Resolution 23.

Disabled Physician Act. This directed the AMA to encourage state medical associations to urge their respective legislatures to adopt the AMA developed model bill known as the "Disabled Physicians Act." Adopted.

Resolution 50.

Relations Between AMA and Component Societies. This asked for better coordination between the AMA and its staff and the component medical societies on key congressional legislation. It calls for the state medical associations to identify within their staffs, one executive who will devote a substantial part of his or her time toward coordinating the federal legislative program. Adopted.

Report CC of Board of Trustees.

Medicare. This called for opposition to proposed modifications to Medicare and Medicaid in the next Congress which would have an adverse effect on medical care. Adopted.

IV. REFERENCE COMMITTEE C

Report D Board of Trustees.

Foreign Medical Graduates. All persons interested in the training of foreign medical graduates should read this report in detail. Adopted.

Report U Board of Trustees.

Collective Bargaining Between Interns and Residents and Hospitals. The report pointed out that interns and residents are students and employees at the same time and called for component medical societies to aid or assist interns and residents in resolving disputes with hospitals. Adopted.

Report A Council on Medical Education.

Foreign Medical Graduates. Department of State requested to inform all foreign national FMG's as to the requirements for exchange visitor status.

Report B, C, D, E Council on Medical Education

Called for revisions in the essentials of graduate training in physical therapy, surgery, radiology, and psychiatry. Adopted.

V. REFERENCE COMMITTEE D

Report B Board of Trustees.

Medical Staff Evaluation of Practitioners. Resolved that the AMA support the principle of evaluation of members of the hospital medical staff on a periodic basis. It is the responsibility and prerogative of the medical staff to determine the necessity, frequency, and type of health evaluation, as well as recommending to the governing board of privileges of each member of the medical staff. This was adopted and transmitted to the Joint Commission on Accreditation of Hospitals.

Resolution 32.

Support of JCAH. Resolution called for continuation of support of JCAH and calls for one set of standards at inspections. In addition it calls for creation of a coordinated program of hospital surveys to avoid duplication and reduce the frequency of hospital inspections. Adopted.

Resolution 43.

Physicians on Hospital Governing Boards. A substitute resolution called for the election by the medical staff of physicians to the hospital governing board. Adopted. (The intent of this resolution is of questionable value in the light of the existence of the Joint Conference Committee, it is also parliamentary nonsense to think that you can elect somebody to the governing board of another corporate body — JRS)

Report Y Board of Trustees.

Hospital Physician Relation. The report notes the increasing need of skillful representation with respect to grievances and disputes arising between physicians and hospitals. It calls for the AMA to develop a policy which would help coordinate and provide assistance in these matters with the cooperation of component medical societies. Adopted.

Report C Council on Medical Service.

Hospital Medical Staffs. This report discussed the liaison between members of the hospital medical staff and the local medical society. It included examples of programs to deal with this problem. Adopted.

Report G Council on Medical Service

Physician Visits. The report dealt with government requirements for frequency of physician visits to Medicare and Medicaid patients in skilled nursing facilities. The Council's opinion was that the medical need of the patient should be the determining factor as to the frequency of the visits. It pointed out that no change is required in the regulations at this time. Adopted.

Resolution 45.

Hospital/Labor Discords. The resolution called for all reasonable measures to be taken in order to resolve labor disputes. Adopted.

VI. REFERENCE COMMITTEE E

Resolutions 15 and 44.

HEW's Restrictions on Sterilization Procedures. A substitute resolution was adopted which requested HEW to amend regulations and to form an advisory committee to aid in re-drafting reasonable regulations applicable to sterilization procedures.

VII. REFERENCE COMMITTEE F

Report E of Board of Trustees,
and F of Constitution and Bylaws

New sections on "emergency medicine" and "nuclear medicine" were established by amending the bylaws.

Report S Board of Trustees.

$60 Assessment. The House adopted the report asking that a determination of the status of members who did not pay would be made by the time of the 1976 clinical convention.

Resolution 5.

Contracts with Government. Resolution adopted which calls for the AMA to refrain from entering into contracts with government which compromise the ability of the Association to support and defend the private practice of medicine.

Resolutions 24 and 48.

Committee on Quackery. This called for the Board of Trustees to give high priority to the establishment of a Committee on Health Fraud. Adopted.

Resolution 39.

Location of AMA Meetings. This called for all future meetings to be held in Chicago. It was pointed out that the cost of the AMA to meet in Chicago was about 30% less than to meet in Hawaii. Adopted.

Report B Council on Long Range Planning and Development Regarding AMA Structure.

This report has 21 recommendations, each to be considered separately. In addition, AMA was to continue the Interspecialty Council. Adopted.

Rec. 1 — AMA remain a federation of state associations. Adopted.

Rec. 2 — Establish an affiliate membership of national medical specialty societies. This was not adopted but the Board of Trustees was instructed to inform selected national specialty societies of five major avenues of entry into the activities of the AMA. These are:

N.B.: Contact through the Interspecialty Council and through the Council of Medical Specialty Societies should have been added to this list.

1. Through state associations,
2. By being a delegate from the state association,
3. Through section councils,
4. Contacting delegates to the AMA, and
5. Direct contact with the Board of Trustees.

Rec. 3 — This was the criteria for affiliate membership and was referred back to the Council.

Rec. 4 — If affiliate membership is approved, it must be approved by the House of Delegates. Adopted.

Rec. 5 — No change in direct membership and housestaff membership. Adopted.

Rec. 6 — This was a reapportionment of delegate representation from the states. Not adopted.

Rec. 7 — Placed the responsibility for AMA dues on the state medical associations. Referred back to the Council.

Rec. 8 — Reference committee appointments to be made for four consecutive sessions. Not adopted.

Rec. 9 — No change in composition and tenure of Board of Trustees. Adopted.

Rec. 10 — Immediate Past President and Vice President be eliminated. The House voted to eliminate the position of Vice President.

Rec. 11 — Since Vice President office is abolished, President-Elect to assume the duties of the office and remain in office for his own elected term. Adopted.

Rec. 12 — President to serve a one-year term. Not adopted.

Rec. 13 — Speaker and Vice Speaker of the house to continue to serve on Board of Trustees without a vote. Adopted.

Rec. 14 — AMA to function with as few standing councils as possible and use committees with specific goals with a limited time frame. Adopted.

Rec. 15 — All councils shall be councils of the AMA with the exception of Section Councils, Council on Legislation, and Council on Scientific Assembly. The Councils shall be elected by the House of Delegates. Councils, with exception of Judicial Council, shall report to the House through the Board of Trustees. Adopted.

Rec. 16 — Board of Trustess to submit two or more nominations for each vacancy on the councils with the exception of the Section Councils, Council on Legislation, and Council on Scientific Assembly. Additional nominations from the floor. Adopted.

Rec. 17 — The Board of Trustees to establish, with the approval of the House of Delegates, the size of each council. Adopted.

Rec. 18 — At the discretion of the Board of Trustees, a voting seat or seats may be added to the Councils except for the Judicial Council, providing that the action does not decrease the full dues paying membership of the council. (These seats are for medical students, interns or residents.)

Rec. 19 — This was referred to the Board of Trustees who are to prepare for the approval of the House at the 1976 Annual Convention an official charge for each of the eight AMA Councils; the number of members of each council; and a better name for the Council on Continuing Medical Studies that would replace the present Council on Scientific Assembly; and suitable candidates for positions on the Councils. Adopted.

Rec. 20 — This will establish criteria for the creation of committees of councils. Adopted.

Rec. 21 — All existing councils and committees, except Section Councils, be phased out within six months following affirmative action by House of Delegates to proposals of the Board in its report in response on Council on Long Range Planning and Development as recommended in No. 19. Adopted.

Minority Report on Report B of Council on Long Range Planning and Development.

This report was filed because practically all of the recommendations in the minority report were accepted in one way or another by modifying many of the recommendations of the Council on Long Range Planning. The House of Delegates owes the author of this report, Dr. Meilling of Ohio, a debt of gratitude for submitting this report because it focused attention on many of the major deficiences of the Council's report.

VIII. REFERENCE COMMITTEE G

Report AA Board of Trustees
Report A Judicial Council.

Medical Discipline. The Report AA was adopted with the recommendation that a preliminary report of the

Committee on Medical Discipline be made to the 1976 Annual Convention and a final report at the clinical convention.

Resolutions 34 and 35.

Communications Between Housestaff and Practicing Physicians. Substitute resolution adopted calling for expansion of communications between housestaff and medical students with medical organizations. It also called for the establishment of a business session of interns, residents, and medical students at the local level. It urged that component medical societies be encouraged to invite members of housestaff and medical students to attend AMA sessions.

Resolution 58.

This called for state and county medical societies to participate in the activities of National Rural Health Week. Adopted.

Report I Board of Trustees.

Professional Liability: Progress Report. This is a detailed report of the activities of the AMA during 1975 to meet the professional liability crisis. It should be read in detail by all those involved at the local level. Filed.

Report Z Board of Trustees.

Professional Liability 1976. This is a follow-up report relating to incorporation of an AMA national reinsurance company and reaffirms support of this idea. In its present form, the national reinsurance company of the AMA will not help many states because it requires 3,000 or more members to participate. Adopted.

Resolution 41.

Public Campaign for Change in Professional Liability Climate. This called for nationwide public relations campaign to promote a change in the tort system and calling attention to professional liablity claims. It was referred to the Board of Trustees.

IX. MISCELLANEOUS

The Distinguished Service Award went to Claude E. Welch, M.D., of Boston.

Citation of a Layman for Distinguished Service went to Representative Paul G. Rogers, of Florida.

Late resolutions were handled by a committee with recommendations to the House. This was a vast improvement over previous procedure.

Respectfully submitted,
JOHN R. SCHENKEN, M.D.
Delegate to AMA

REPORT OF THE NEBRASKA MEDICAL FOUNDATION, INC.

Over the past several years, loan activity of the Nebraska Medical Foundation has diminished due to greater availability of loan funds from other sources. While loan demands have diminished, the Foundation is now furnishing, for those borrowing students, most of their financial needs while in school. This has one distinct advantage in that the Foundation does not have to compete for pay out funds with other loans for which the student may have been obligated. As a result, the problem of default on Nebraska Medical Foundation loans has been reduced noticeably within the last several years.

Additionally, the Foundation offers a side benefit, at no cost to the student, that of financial advice of their overall monetary needs. Each student receiving loans from the Foundation must appear in person to obtain his check from an officer of the Foundation Trustee, First National Bank. At this session, advice and assistance is offered to the student regarding his finances, even to the point in one case where the bank trustee handles the student's income and pays his bills at his request. We feel this specialized service has been of much assistance to the borrowing student, many of whom have had little or no training or background in financial matters. Through this service, we feel that many of our loanees will be much better equipped to meet the financial aspects of their future medical practice.

In conclusion, the Foundation Officers wish to thank the membership and the Auxiliary for their continued interest and support of the Nebraska Medical Foundation. A summary of income and loan activity follows:

Contributions: (April, 1975-April, 1976)

Physicians	$3,860.00
Auxiliary	1,144.24
Others	527.00
Total	$5,531.24

Loans: (Total of loans since March, 1964)

	No. of Loans	Amount
Medical Students	862	$ 955,380
Dental Students	151	168,250
Interns	26	27,500
Residents	40	39,650
Nursing	7	4,600
Medical Technology	5	3,400
Physical Therapy	7	4,900
Total	1,098	$1,203,680

Respectfully submitted,
LOUIS J. GOGELA, M.D.
President

REPORT OF AD-HOC COMMITTEE ON PROFESSIONAL LIABILITY

James H. Dunlap, M.D., Norfolk, Chairman; John P. Gilligan, M.D., Nebraska City; William T. Griffin, M.D., Lincoln, Robert F. Shapiro, M.D., Lincoln; A. L. Smith, Jr., M.D., Lincoln; John W. Smith, M.D., Omaha.

The formation of this committee and its four subcommittees followed an action taken by the House of Delegates at its April, 1975, session. Soon after the session, members were appointed to the Ad-Hoc Steering Committee, a Subcommittee on Legislation, a Subcommittee on Professional Education, a Subcommittee on Alternatives and the NMA Public Relations Committee was selected to serve as the Subcommittee on Public Education.

Work began immediately as the subcommittees met to consider the subject areas each was assigned. The Subcommittee on Alternatives looked into such matters as an NMA self-insurance mechanism, the AMA national reinsurance facility and other matters in the category of possible alternatives for Nebraska physicians who soon might face a severe insurance availability problem.

The Subcommittee on Professional Education was responsible for the thirteen professional liability informational meetings held across the state. Representatives of the Subcommittee on Legislation, an NMA officer and staff were present at each of the meetings to explain the legislative proposal, the background of Nebraska's legislative process and to request the grass-roots support needed to accomplish a legislative achievement such as that being proposed.

The Subcommittee on Public Education would assume a primary role in accomplishing the legislative victory. Committee members or representatives of the committee met with the allied professions and developed the public relations strategy that would be used to augment this legislative endeavor. Many news releases were prepared and distributed and direct contact with the media was used extensively. The mechanisms used proved to be effective.

The Subcommittee on Legislation did an outstanding job. It held weekly meetings from early June until late in the year preparing the actual wordage of the bill that would be introduced in the 1976 Legislature. The committee spent several hundred hours in this endeavor. Representatives of this committee also spent countless hours monitoring day-to-day activities in the Legislature because of their expertise regarding the actual wordage and intent of the bill.

Association representatives met to discuss the actual introduction of the bill, and Senator Loran Schmit was asked to consider introduction of this piece of legislation. Senator Schmit studied the proposal for several weeks and agreed to be the introducer. The bill was introduced in early January, 1976, as LB 703.

Members of the NMA are well-versed on what then transpired because the NMA Headquarters Office distributed what came to be known as the NMA Legislative Update and media coverage of the progress of the bill was rather voluminous. Mid-way in the legislative process, Senator Schmit saw that LB 703 might become entangled with other bills which had no chance of completing the legislative process because of time limitations, and consequently, he moved it ahead of the budget bills by substituting the wordage in LB 703 for a bill already bracketed on Select File. With this process, the bill then became LB 434. The bill was passed by the Legislature on March 31, was signed by the Governor on April 6, and will become law on July 9, 1976.

At this point, the work of the Ad-Hoc Steering Committee on Professional Liability and its subcommittees is now complete. As Chairman of the Steering Committee, I wish to commend several individuals for their untiring dedication and effort in this most important endeavor. The Chairmen of the subcommittees did an outstanding job. The time given to this effort by Doctor Herbert E. Reese; Doctor Blaine Y. Roffman; NMA President, Doctor Warren G. Bosley and NMA President-Elect, Doctor Harlan E. Papenfuss was considerable. A special thank you must be given to all NMA members and Auxiliary members, who took the time to continually contact their Senators regarding this important effort. Recognition also needs to be given to Mr. Carroll Thompson, who serves as Public Relations Counsel to the NMA; Mr. Flavel A. Wright and Mr. Charles M. Pallesen, Jr., NMA Legal Counsel, who not only drafted the wordage for the bill, but continued through the legislative process monitoring the various proposed amendments and those actually accepted. This bill could not have been an accomplished fact without the able guidance and effort of Senator Loran Schmit. The original selection of Senator Schmit to serve as sponsor for the bill, and the outstanding job done by Senator Schmit on the legislative floor must be recognized. Special recognition also needs to be given to Mr. John Humpal who was contacted and hired by the Policy Committee to serve as lobbyist.

The NMA now has another responsible task. The Association must now make the law functional. We must strive for public acceptance of this new statute because there are others that will most assuredly make every effort to destroy its uniqueness and effectiveness. The various issues must be closely studied and monitored in coming months. The alternatives for the future must also be studied and evaluated.

Decisions must be made as to whether it is advisable to seek further legislative reform in 1977 or to wait for future sessions of the Legislature. Attempts by others to legislatively destroy the effectiveness of this statute must be monitored as they will surely arise.

It is the recommendation of the Ad-Hoc Steering Committee on Professional Liability that the responsibility for establishing the committee structure and responsibilities for future efforts in this regard be placed with the NMA Policy Committee. The Policy Committee should be given the authority to either appoint special committees or utilize constitutionally designated NMA committees. The Policy Committee needs full authority to do whatever it deems necessary.

There are several NMA committees which should be given consideration for assignments with professional liability issues. The Medicolegal Advice Committee has responsibilities in this subject area and may need to be either expanded or authorized to appoint subcommittees to assume these responsibilities. NMA members must be kept apprised of the local and national situation regarding the professional libability situation and it would appear this is a responsibility of the Public Relations Committee. The Medical Education Committee and others may also play a part in this new area of study.

A special emphasis needs to be given to the AMPAC-NEBPAC Committee. Continued and increasing work in this area will produce benefits to medicine far out of proportion to the efforts expended.

On behalf of the members of the Ad-Hoc Steering Committee on Professional Liability and the various subcommittees, I thank the members of the NMA for their interest and personal activities in this important effort, and I herewith submit this report to the House of Delegates for its consideration. AMEN.

Respectfully submitted,
JAMES H. DUNLAP, M.D.,
Chairman

Appended for information only:
a. Malpractice claim flow chart
b. Selected comments of NMA Legal Counsel

Proposed Flow Chart of Claims Under LB 434

Occurrence
**
Plaintiff Consults Lawyer
Petition or Complaint Prepared but not Filed
**
Plaintiff requests hearing before Medical Review Panel
Submits copy of Complaint
Designation of Physician Panel Member
and Nomination of Attorney Member
to Director of Insurance
**
Director of Insurance notifies Health Care Provider
**

Health Care Provider designates Physician
Panel Member
Nominates Attorney Member
**
Two Physicians select third Physician Panel Member
**
Depositions may be Taken
**
Written evidence submitted to Panel
**
Argument before Panel
**
Deliberation and Decision Reached
**
Plaintiff may now file Petition in Court
**
Defendent files Answer
**
Case is tried to Court or Jury
if Jury was Requested

17 POINT ANALYSIS OF LB434

As Prepared by NMA Legal Counsel

I have examined the Medical Malpractice Bill as passed by the Nebraska Legislature on March 31st and note that during the process of enactment of this legislation the following changes were made from the bill as originally introduced:

1. Nurse anesthetists were included as health care providers covered by the act.

2. The community standard of care which in the original bill was limited to communities in Nebraska was broadened to include similar communities outside of Nebraska.

3. The original bill provided that contracts to produce a cure or to guarantee safety of a procedure must be in writing. The Legislature eliminated the portion relating to guaranteeing safety of a procedure.

4. The original bill permitted damages recovered to be reduced by any nonrefundable amount received from any collateral source. As enacted by the Legislature, the collateral source is limited to non-refundable medical reimbursement insurance and further premiums paid for the insurance are taken into account to determine the net amount recovered from that collateral source.

5. As originally offered the bill limited damages to economic loss. This limit was eliminated by the Legislature and as enacted the bill covers damages proximately resulting from the wrongful acts without limitation except as to the amount and without definition as to damages recoverable.

6. The original bill provided that in a death claim the remarriage of a spouse could be offered in evidence. As adopted by the Legislature this provision was eliminated.

7. The original bill provided that a claim against a health care provider under the act could not be joined with any common law action. The Legislature amended this to provide that the limit on joinder of causes of action would apply only with respect to health care providers who had not qualified under the act.

8. The original bill contained a paragraph setting forth that a health care provider should be liable only for the acts of omission or commission of his partners or servants and attempted to limit the captain of the ship doctrine. This paragraph was eliminated by the Legislature.

9. The original bill included cause of action for assault or battery based on lack of consent to be included in the act. The Legislature eliminated the reference to assault and battery.

10. The Legislature added a paragraph requiring notice to be posted in the doctor's office to the effect that the doctor had qualified under the act and that the patient would be under the act unless he filed a refusal to be bound with the Director of Insurance.

11. The Legislature added an overall limit of the insurance required of hospitals in the amount of one million dollars per insurable period.

12. The original bill provided that payment for future damages should be held in trust. The trust provisions were eliminated by the Legislature.

13. The original bill provided a statute of limitations of two years except with reference to minors under six years of age in which event the minor would have until his eighth birthday to bring an action. The Legislature changed this to provide a two-year period with a one year after discovery and an overall six-year limit. Nothing is mentioned in the bill as passed with reference to minors and under the case of **Ray v. Sanitary Garbage Company** decided by the Nebraska Supreme Court a number of years ago, the statute of limitations would be the same with respect to minors as with respect to adults.

14. As enacted, the law permits a special surcharge to be assessed by the Director of Insurance in order to keep the excess liability fund solvent.

15. The original bill provided some limits on plaintiff's attorneys fees. This was changed to give the court jurisdiction to determine attorneys fees. The Legislature also added a provision that the court could assess sanctions in the form of costs, attorneys fees and loss of earnings in cases where a case was not prosecuted in good faith or in cases where it was not defended in good faith.

16. The original bill provided that the medical review panel could determine what damages proximately resulted from alleged malpractice found to exist. This provision was eliminated by the Legislature. The Legislature also provided for a minority report with respect to the medical review panel.

17. The original bill provided for sanctions if the medical review panel found there was no basis for an action and the plaintiff proceeded to file an action and did not recover. This provision was eliminated by the Legislature and the only sanctions involved in the bill as passed would be those which the court could assess if the court found the action was not justified.

18. The original bill provided for voluntary arbitration by the panel. This provision was eliminated by the Legislature.

Notwithstanding the changes made by the Legislature as hereinbefore outlined, the bill as passed contains many favorable provisions. These include:

1. Claims based on lack of informed consent will be substantially restricted since the plaintiff will be obligated to prove that the health care provider failed to provide information which would normally have been provided by the health care provider in that locality or similar locality under similar circumstances and further requires that the plaintiff establish that a reasonable person would not have permitted the procedures to be undertaken had proper information been provided and

that the lack of informed consent was the proximate cause of the damages.

2. Causes of action cannot be asserted on the basis of an express or implied contract assuring results unless the contract is in writing and signed by the health care provider or his authorized agent.

3. The net amount of non-refundable medical reimbursement insurance received by the plaintiff must be deducted from any judgment recovered by the plaintiff.

4. All patients will be presumed to have elected to come under the act unless they file a refusal to be bound by the act with the Director of Insurance in advance of any treatment, act or omission upon which any claim or cause of action is based and unless they notify the health care provider of the election as soon as is reasonable under the circumstances that the patient has so elected. The only obligation of the health care provider to notify a patient of his election is to place a sign in his waiting room or other suitable location, notifying the patient that he has qualified under the act and that the patient will be subject to the terms and provisions of the act unless he files a refusal to be bound by the act with the Director of Insurance of the State of Nebraska.

5. In any action filed in court, unless one of the parties requests a jury trial, the matter will be decided by the judge.

6. In any petition no dollar amount or figure shall be included in the demand, but the petition shall ask for such damages as are reasonable in the premises.

7. The total amount recoverable under the act from any health care providers and the excess liability fund for any occurrence resulting in injury or death of a patient may not exceed $500,000.

8. The health care provider qualified under the act shall not be liable to any patient for an amount in excess of $100,000 for all claims or causes of action arising from any occurrence during the period that the act is effective with reference to such patient.

9. The health care provider may make advance payments without admitting liability and shall receive credit on the advance payments against any judgment or settlement later obtained.

10. The statute of limitations under the act is two years plus one year after discovery or after the cause of action should have been discovered with an overall maximum period of six years in any event. This six-year period should apply not only to adults but also to minors and incompetents, unless the court changes the rule which presently exists in this state.

11. The act provides for an excess liability fund and limits the annual surcharge to any health care provider not to exceed 50 percent of the annual premium paid for primary coverage.

12. The court has some rights to limit attorneys fees upon motion of either party.

13. The court has rights to tax costs of preparation and trial, reasonable attorneys fees and reasonable loss of earnings of the prevailing party against the losing party if the court finds that the losing party did not have a reasonable chance of recovery or a reasonable chance of successful defense.

14. If the health care provider and the patient are both under the act, it is the exclusive remedy and no other action can be brought against the health care provider.

15. If a health care provider is unable to obtain malpractice insurance from insurance companies licensed to do business in Nebraska, he may apply for such insurance from the excess liability fund and that fund can provide the primary coverage.

16. No action may be brought in a court until after the matter has been submitted to a medical review panel which is composed of one lawyer and three doctors licensed to practice medicine in Nebraska. The lawyer has no vote but presides over the panel. The panel decides only whether there is evidence that the defendant failed to comply with the appropriate standard of care as charged in the complaint or that the evidence supports the conclusion that the defendant met the applicable standard of care required under the circumstances or that there is a material issue of fact not requiring expert opinion bearing on liablity for consideration by the court or jury in certain particulars.

17. The original medical qualifications commission provisions were left substantially as presented.

REPORT OF THE GERIATRICS COMMITTEE

Vernon G. Ward, M.D., Omaha, Chairman; Dwight M. Frost, M.D., Omaha; Clyde A. Medlar, M.D., Columbus; Frederick F. Paustian, M.D., Omaha; Douglass A. Decker, Jr., M.D., Lincoln.

Since the report of the committee in October, 1975, no new official business has been presented to this committee for action.

The committee has continued its relationship with the Commission on Aging through the Nebraska Commission on Aging Advisory Panel.

The Advisory Panel held a quarterly public meeting in the State Capitol on September 10, 1975. At this meeting the State Plan for the Nebraska Commission on Aging for fiscal year 1976 was discussed.

On December 3, 1975, the Commission on Aging distributed an information memorandum concerning the Commission's plan for action in the event of a declared national disaster.

On December 8, 1975, the Commission distributed an information memorandum relating to changes in food stamp allotments.

A similar information memorandum of December 29, 1975 was related to mill levy information in each of the Nebraska counties.

A quarterly public meeting of the Commission on Aging was held in Lincoln on December 5, 1975.

In January, 1976, a Nebraska Legislative Review of Bills concerning Nebraska's older population was prepared by the Commission on Aging.

A combined meeting of the Commissioner's and the Advisory Panel members was held in Lincoln on March 5, 1976 and March 6, 1976. The regular quarterly meeting of the Nebraska Commission on Aging was March 6, 1976.

The Department of Public Welfare continues to publish the Physician's Bulletin. The most recent editions were dated October 2, 1975 and January 30, 1976.

Respectfully submitted,
VERNON G. WARD, M.D.
Chairman

REPORT OF THE INSURANCE AND PREPAYMENT MEDICAL CARE COMMITTEE

A. L. Smith, Jr., M.D., Lincoln, Chairman; Harold D. Dahlheim, M.D., Norfolk; Russell J. McIntire, M.D., Hastings; Frederick F. Paustian, M.D., Omaha; Blaine Y. Roffman, M.D., Omaha; Paul M. Scott, M.D., Auburn; Stanley M. Truhlsen, M.D., Omaha; Hiram R. Walker, M.D., Kearney.

Your committee has met on three occasions, once with the Policy Committee, to discuss insurance matters facing your Association. Nearly all of the time and effort by the active members of your committee has been spent in connection with professional liability insurance legislation.

Your committee met with Roger Mason, M.D., Medical Director of Blue Shield, on two occasions to discuss possible consolidation of the present five area division of the state by Blue Cross-Blue Shield. This situation came about on the recommendation of the House of Delegates of the Nebraska Medical Association in 1969. Blue Cross-Blue Shield proposed a two-area division of the state, and prolonged discussion of the alternatives and their repercussions confronted the committee. In the end, complete disagreement resulted in a tie vote which in essence was a recommendation to continue the present five area division of the state. The main factor in this decision was the spector of anit-trust violation and fee setting by Blue Cross-Blue Shield and Nebraska Medical Association. It was the opinion of the committee that the individual physician should set his own fee. For these reasons, no recommendation can be made by the committee to the House of Delegates.

Respectfully submitted,
A. L. SMITH, JR., M.D.
Chairman

REPORT OF THE MEDICAL EDUCATION COMMITTEE

John W. Smith, M.D., Omaha, Chairman, James E. Bridges, M.D., Fremont; Wendell L. Fairbanks, M.D., Auburn; Randolph M. Ferlic, M.D., Omaha; R. C. Rosenlof, M.D., Kearney; Fred J. Rutt, M.D., Hastings; Robert J. Stein, M.D., Lincoln; Joseph M. Holthaus, M.D., Omaha; Perry G. Rigby, M.D., Omaha.

The major effort of the Medical Education Committee has been directed toward starting the Nebraska Medical Association Accreditation Program for Category I Programs in Continuing Medical Education in Nebraska. The announcement of the program appeared in the NMA NEWS in January, and a number of inquiries were received. The first inspection is scheduled for May 14. This site survey will be made by members of the Association with representatives from the Council on Medical Education of the American Medical Association.

The report of the survey on continuing medical education among our members is appended to this report. We were very pleased to see so many answers.

Legislative Bill 877 was passed by the Legislature this year. Section 14 of this bill enables the Board of Examiners to require continuing education as a condition of relicensure. Such requirements have not been outlined as yet and your Medical Education Committee would like suggestions from the members as to what they think acceptable amounts and types of continuing education should be required.

Respectfully submitted,
JOHN W. SMITH, M.D.
Chairman

Tabulated Results as of April 19, 1976
Total Surveys Returned: 276

CONTINUING MEDICAL EDUCATION SURVEY

TO THE MEMBERS OF THE NEBRASKA MEDICAL ASSOCIATION:

The Medical Education Committee of your State Medical Association would like an idea of your own current efforts in Continuing Medical Education.

In the last three years, have you:

1. Met the CME requirements for recertification in your specialty?

   168 YES 60 NO

2. Met the requirements for the AMA Physician's Recognition Award?

   163 YES 67 NO

3. Taken a self-assessment examination in your specialty?

   149 YES 107 NO

If none of the above,

4. How many courses, regional or national meetings have you attended in the last three years?

2	37	90	72
0 - 1	2 - 4	5 - 8	Over 9

5. What other efforts do you make toward your continuing medical education?

   241 — Read Journals
   233 — Hospital Staff Meetings
   68 — Write Papers
   165 — Teach

Thank you,
John W. Smith, M.D., Chairman
Medical Education Committee

When you have completed this survey, please return it to:

NEBRASKA MEDICAL ASSOCIATION
1902 First National Bank Building
Lincoln, Nebraska 68508

STATE PEER REVIEW COMMITTEE

Milton Simons, M.D., Omaha, Chairman; K. Don Arrasmith, M.D., Omaha; John D. Baldwin, M.D., Lincoln; Dwight W. Burney, Jr., M.D., Omaha; John C. Denker, M.D., Valley; Henry Kammandel, M.D., Omaha; Harold W. Keenan, M.D., Ogallala; Kenneth T. Kimball, M.D., Kearney; Kenneth T. McGinnis, M.D., Lincoln; J. P. Schlichtemier, M.D., Omaha; Richard L. Tollefson, M.D., Wausa; Hobart E. Wallace, M.D., Lincoln; Dean C. Watland, M.D., Omaha; Raymond J. Wyrens, M.D., Omaha.

The State Peer Review Committee met on two occasions this past winter in regard to a problem between two physicians and the hospital and community within which they practice.

In trying to summarize the problem, it involves the granting of clinical privileges in small hospitals by the medical staff and subsequently approved by the Board of Directors of that particular institution. It is exceedingly difficult for such privileges to be clarified when there is disagreement between the two physicians and certainly the Board of Directors is in no position to judge the professional qualifications of the physicians involved.

It is recognized that the JCAH has now required that medical staffs establish clear delineation of non-surgical privileges as well as surgical privileges. This has reached a major requirement for full accreditation by the JCAH. The attitude of the JCAH has been that some guidelines have been established through the various national professional organizations and these should be used in conjunction with the local hospital staff evaluation of their own particular members.

It is really not clear as to how specific such privileges should be given. The delegates know that there are various forms available which consist of a series of procedures after which the staff member may check off if he feels that he is capable in these particular areas. The various checklists are of different lengths and many cover almost every type of disease entity and procedure presently performed in the practice of medicine.

Greater attention is being given to annual staff review processes. The JCAH has seen fit to deny full accreditation if these specific delineations are not carried out, yet, we are not certain whether or not medicine has reached that point where we can be so specific even in broader categories without some careful study being given to this issue.

We must recognize these responsibilities in light of the concern over professional liability and what these changes and requirements by JCAH may mean.

The situation certainly varies from institution to institution. We have the major communities through the state with one or more large hospitals with many staff members and representatives of many of the specialty groups. On the other hand, we have many small hospitals with five or less physicians which make it even more difficult for this evaluation. The peer review activities of the state look for some help and guidelines from the State Medical Association.

Respectfully submitted,
MILTON SIMONS, M.D.,
Chairman

SUB-COMMITTEE ON ATHLETIC INJURIES

John E. Murphy, M.D., Aurora, Chairman; Stanley M. Bach, M.D., Omaha; Robert B. Benthack, M.D., Wayne; Patrick E. Clare, M.D., Lincoln; S. I. Fuenning, M.D., Lincoln; Paul Goetowski, M.D., Lincoln; Jack K. Lewis, M.D., Omaha; Otis W. Miller, M.D., Ord; Charles W. Newman, Lincoln; George Sullivan, R.P.T., Lincoln; Wayne Wagner, A.T., Omaha; John G Yost, M.D., Hastings.

The Sub-Committee on Athletic Injuries has continued to carry out its duties in a very satisfactory manner.

A two-day symposium was achieved in the Fall of 1975. This included the first program with a full day dedicated to covering various aspects of girls in athletics. It was a most successful program and attendance by coaches and team physicians was extremely good. The second day was devoted to boy's basketball and attendance was rather poor. Our committee has analyzed this and we feel partly responsible in that we tried to cover two different areas of sports medicine and we lost our first day crowd. However, we would certainly encourage physician attendance at our postgraduate meetings as the programs are carefully arranged and the speakers carefully chosen.

The most satisfying news is that the University of Nebraska at Lincoln has now established a block of studies allowing a minor in athletic training. This is a program which our committee has spent much work with. This will begin to provide some assistance in out-state areas for care and rehabilitation of athletic injuries. They will be available to schools to work with the coaching staff and physicians. This will also meet the requirements being pushed on a Federal level by Representative Dellums of California in his National Health and Recreational Safety Act.

We wish to take this opportunity to specifically thank Dr. Sam Fuenning and George Sullivan from our committee, as well as Mr. Dennis Seely, for all the hours provided by them at the University level to see this program accomplished.

Respectfully submitted,
JOHN E. MURPHY, M.D.,
Chairman

REPORT OF AD-HOC COMMITTEE ON PSRO

Houtz G. Steenburg, M.D., Aurora, Chairman; John H. Bancroft, M.D., Kearney; Warren G. Bosley, M.D., Grand Island; James H. Dunlap, M.D., Norfolk; Allan C. Landers, M.D., Scottsbluff; Harlan L. Papenfuss, M.D., Lincoln; Donald J. Pavelka, M.D., Omaha; Frank P. Stone, M.D., Lincoln; Carlyle E. Wilson, Jr., M.D., Omaha.

The Social Security Amendments of 1972 contain a provision requiring the establishment of Professional Standards Review Organization (PSRO) to monitor health care services rendered to Medicare, Medicaid, and Maternal and Child Health beneficiaries reimbursable under the Social Security Act. HR 10284 extends under special circumstances, until January 1, 1978, the date until which the Secretary of HEW must exclusively name a non-profit professional organization as the PSRO for any area. The extension is not applicable in any area where: 1) the membership association or organization representing the largest number of doctors of medicine in such area, or in the state in which such area is located (if different) has adopted by resolution or other official procedure a formed policy position of opposition to, or non-cooperation with the established program of professional standards review; or 2) the organization proposed to be designated by the Secretary has been negatively voted upon in a poll as provided in the PSRO law, whereby the doctors may reject such organization as not being representative of the doctors in the area.

At the Fall Session of the House of Delegates a resolution was approved which resolved that the Nebraska Medical Association shall not be involved in administration of PSRO. Doctors McWhorter, Coe, and Truhlsen amended this, so as not to dissolve the Ad-Hoc Committee on PSRO. Doctor Retelsdorf amended the Reference Committee's report by adding, "and that the committee continue to study Nebraska Medical Association's role in PSRO, if any, and report back at the 1976 Annual Session of the House of Delegates." The best guess of the Committee at that time, October, 1975, was that PSRO was not, and probably could not be funded nationally. We were wrong. In February, 1976, the Ad-Hoc Committee met with Sam Wheeler and Doctor Herblein, Regional HEW representatives for PSRO. They stated that in no way is PSRO a "dead horse." Development of all 277 PSRO units shall be accomplished by January 1, 1977, and they shall be operational by January 1, 1978. The prior hold up of funds was relieved when the Trust Funds for Title 5, 18, and 19 were made available by Social Security to pay for the utilization review at approximately $12 per patient. They also indicated that several groups have indicated an interest in running the PSRO unit for Nebraska should NMA fail to do so. They named University of Nebraska College of Medicine, Creighton University or groups at these institutions and several "less qualified" groups. Further investigation revealed the schools were not aware of any contact being made with HEW. Contact with Robert Sparks, M.D., Chancellor of the University of

Nebraska College of Medicine, and Robert Heaney, M.D., Vice President for Health Sciences of Creighton University, revealed this fact.

Your Ad-Hoc Committee has spent roughly $35,000 studying and informing themselves about PSRO. Your committee feels relatively knowledgeable about PSRO. Your committee on PSRO deems it necessary to exercise as much control over PSRO as possible — which includes the establishment of the norms, criteria, and standards, and the election of officers. It is felt that should directives from HEW make NMA's role in PSRO untenable, that would be a proper time to divest ourselves of the PSRO role, and indeed let someone else do the job.

Therefore, your Ad-Hoc Committee, in a non-unanimous vote, recommends to the House of Delegates of the Nebraska Medical Association that they reconsider the previous action of the House and allow the Ad-Hoc Committee to apply for a federal planning grant from HEW for the establishment of a PSRO unit, along previously discussed CPHA lines.

Respectfully submitted,
HOUTZ G. STEENBURG, M.D.
Chairman

REPORT OF COMMITTEE ON HEALTH EDUCATION IN SCHOOLS AND COLLEGES

S. I. Fuenning, M.D., Lincoln, Chairman; Frank O. Hayworth, M.D., Omaha; Clyde L. Kleager, M.D., Hastings; Harold V. Smith, M.D., Kearney; Robert M. Sorensen, M.D., Fremont; Mrs. Y. Scott Moore, Lincoln; Mrs. Jack M. Stemper, Lincoln.

This is a progress report of the activities of this committee for this fiscal year.

This committee has continued to maintain abreast of the rapid developments in the field of health education. The National Center for Health Education, as previously recommended by the President's Committee on Health Education, has now materialized and has formally initiated operation on October 1, 1975, in New York City. The National Center for Health Education is a private, non-profit organization and has as its overall objective to improve the health of the American people through health education. There are seven major leadership functions to be performed by the Center, and these are as follows: Concensus building . . . Policy determination . . . National Strategy design . . . Health education advocacy . . . Data base development and informative exchange . . . Technical assistance . . . and Evaluation, testing and demonstrating. In other words the Center will stimulate, coordinate, and evaluate health education programs.

Another significant development was the National Conference on Preventive Medicine held in Washington, D.C. in June of 1975. One of the major task forces dealt with health education. The following definition of health education was adopted unanimously by the task force and conference.

1. "Inform people about health, illness, disability, and ways in which they can improve and protect their own health, including more efficient use of the delivery system;

2. "Motivate people to want to change to more healthful practices;

3. "Help them to learn the necessary skills to adopt and maintain healthful practices and lifestyles;

4. "Help other health professionals to acquire these teaching skills;

5. "Advocate changes in the environment that facilitate healthful conditions and healthful behavior; and

6. "Add to knowledge via research and evaluation concerning the most effective ways of achieving the above objectives."

The Health Education Committee has reviewed this definition in addition to others that have been recently established. This definition was more descriptive of the areas of concern. This Committee has adopted the above definition as a working description of health education.

As previously reported, the Berkeley Project, or as it is now known, the School Health Curriculum Project, has proven to be effective. It is the only health curriculum in schools that has been carefully evaluated over a period of several years. According to a recent report entitled, "Focal Points" issued by the Bureau of Health Education, Center for Disease Control, the following statement was made:

> "There are continuing reports of the impact that the curriculum experience has on the lifestyles of parents as well as children. The project also spills over into the teaching styles used in other curriculum areas. Teachers often note that the project has an impact on reading practices, and that the use of the school library increases noticeably. According to many teachers, children's attitudes toward each other change, and boys and girls work better together. Parents frequently report that their children have more enthusiasm for school and their studies. Administrators report an improvement in attendance and discipline. There is evidence that the project is influencing some state legislatures to adopt and support more meaningful school health education legislation."

It is the intent of this Committee to promote this School Health Curriculum Project for the elementary and junior high grades in Nebraska. A promotional meeting has been held with representatives from the following state associations: The Nebraska State School Board Association, Nebraska School Administrators Association, Nebraska Educational Association, the State Department of Education. The objective of this meeting was to determine how this School Health Education Curriculum can be initiated in Nebraska. The Committee will welcome the support of any member of the Nebraska Medical Association interested in helping to initiate this health education curriculum in their local school district.

The Chairman expresses great appreciation to all members of the Nebraska Medical Association that have provided continuous support of health education in their local area. In addition, I want to express my appreciation to members of the Committee for their work in the promotion of health and fitness in the State of Nebraska.

Respectfully submitted,
S. I. FUENNING, M.D.,
Chairman

REPORT OF THE PUBLIC RELATIONS COMMITTEE

William T. Griffin, M.D., Lincoln, Chairman; Richard D. Gentry, M.D., Falls City; Donald Matthews, M.D., Lincoln; G. P. McArdle, M.D., Omaha; Dale E. Michels, M.D., Lincoln; John C. Sage, M.D., Omaha.

The work of the Public Relations Committee expanded considerably during the last half of 1975 and the first three months of 1976. The primary effort focused on successful preparation for, and passage of LB 434 (703).

During 1975, the Public Relations Committee served a dual role when named as the Subcommittee on Public Education to the Ad-Hoc Steering Committee on Professional Liability. Doctor Donald Matthews chaired a subcommittee of the Public Relations Committee to work directly with the Nebraska Hospital Association in our public information effort regarding the legislation.

In 1975, the information distributed, primarily through news releases and direct contact with the media, focused on the Nebraska situation that had developed regarding adequate professional liability insurance. The need for legislative relief in the 1976 Unicameral was emphasized. The reaction by the public was generally supportive and sympathetic.

Following introduction of LB 703, the public information program was accelerated. A close working relationship was established between Senator Loran Schmit, the officers of the Association, those lobbying for the bill and those carrying out the public information program. The mutual working relationship served as a very effective mechanism for the distribution of news information. The Thompson Company, who has served as NMA Public Relations Counsel for several years, coordinated the news material that was distributed by those supporting the passage of LB 703. Direct contact with Senators, physicians and representatives of the allied professions was invaluable.

Printed materials including brochures relative to LB 703 and signs for posting in physician's offices were distributed to all physicians across the state. The response, as evidenced by the orders for additional materials, was gratifying. The physicians of the state did an outstanding job of informing their patients of the problems which existed and the need for remedial legislation.

The Auxiliary to the Nebraska Medical Association also deserves a compliment for the efforts they expended informing community representatives and the legislators about the need for this bill.

The NMA did have a successful effort in that public response remained supportive, and the legislation was passed by a sound margin.

The Association's monthly mailing of health tips to radio stations, television stations and newspapers has continued, and the usage of the materials has remained at a worthwhile level. The response from Nebraska's media has been generally good. The committee intends to continue this activity next year.

The Association's film entitled "But For The Grace . . ." continues to receive good utilization by Nebraska schools. A second mailing noting the availability of the film will be sent Nebraska schools in the Fall of 1976.

The "Let's Hear It For Medicine, U.S.A." program continues to be used by Nebraska media. The committee feels this was a worthwhile program which continues to educate the public on the accomplishments of American medicine placing the profession in a positive light.

The committee has been busy and looks forward to continually expanding its role of function in months to come.

Respectfully submitted,
WILLIAM T. GRIFFIN, M.D.,
Chairman

Report of Board of Councilors

FIRST SESSION

The first session of the Annual Meeting of the Board of Councilors was held May 2, 1976, at the Holiday Inn, Kearney, Nebraska.

The meeting was called to order by the Chairman, Dr. Houtz Steenburg. The following Councilors were present: Drs. Carlyle E. Wilson, Jr., Louis J. Gogela, H. C. Stewart, Houtz Steenburg, Lyle Nelson, Hiram Walker, Fred J. Rutt, Berl Spencer, Calvin Oba, Warren Bosley, Harlan Papenfuss and James Dunlap.

The minutes of the Fall Session meeting of the Board of Councilors were approved as printed in the December, 1975, issue of the Nebraska Medical Journal.

Dr. Steenburg called for election of one member on the Board of Directors, the term of Dr. Chas. Ashby expiring. The Councilors approved the reelection of Dr. Ashby to the Board of Directors.

Dr. Steenburg called for election of one member on the Medicolegal Advice Committee, the term of Dr. O. A. Kostal expiring. The motion was made and seconded that Dr. James H. Dunlap be elected to serve on this committee and this was approved.

Dr. Steenburg called for election of two members on the Council on Professional Ethics, the term of Dr. Chas. Ashby expiring and to fill the unexpired term of Dr. Frank Tanner. Dr. Carlyle Wilson was elected and the Councilors laid over until its second session the decision on the second appointment.

The Board of Councilors approved the requests for Life Membership which appeared in the Handbook.

The reports and resolutions appearing in the Handbook were considered. These were approved for consideration of the House of Delegates.

There being no further business, the Board of Councilors was recessed until Monday morning.

SECOND SESSION

The second session of the Board of Councilors was held May 3, 1976. The meeting was called to order by the Chairman, Dr. Houtz Steenburg.

The following Councilors were present: Drs. Carlyle E. Wilson, Jr., Louis J. Gogela, H. C. Stewart, Houtz Steenburg, Lyle Nelson, Hiram Walker, Berl Spencer, Calvin Oba, Warren Bosley, Harlan Papenfuss and James Dunlap.

Dr. Steenburg called for approval of the minutes of the first session of the Board of Councilors, and these were approved as printed.

The selection of members on the Council on Professional Ethics was discussed. Dr. Charles Ashby was reelected to serve on this Council, and Dr. Carlyle Wilson was elected to fill the unexpired term of Dr. Frank Tanner on this Council.

Dr. Wilson said that inasmuch as Drs. Steenburg and Nelson were ineligible to serve on the Board of Councilors for another term, he would move that commendation be given to Dr. Steenburg for the eight years he had served and to Dr. Nelson for the six years he had served. This was approved.

There being no further business, the meeting was adjourned.

Report of House of Delegates

FIRST SESSION

The first session of the Annual Meeting of the House of Delegates was held on May 2, 1976, at the Holiday Inn, Kearney, Nebraska. The meeting was called to order by the Speaker, Dr. Harry W. McFadden, Jr.

A call for a quorum showed 65 delegates present, and the House was declared in session.

Dr. McFadden called for oral reports, and the following were presented:

Senator Loran Schmit, introducer of LB 434 (703) in the 1976 Legislature
Mr. Flavel Wright, Legal Counsel for the NMA
Dr. John P. Gilligan, Chairman, Medicolegal Advice Committee
Dr. Walter A. Bennett, Representative, Nebraska Dental Association
Dr. Fred Paustian, University of Nebraska Medical Center

Written reports were read by the Speaker from Dr. Perry Rigby, Dean, University of Nebraska College of Medicine and Dr. Joseph Holthaus, Dean, Creighton University School of Medicine.

An oral report was also presented to the House by Dr. Henry D. Smith, Director of the State Department of Health.

Dr. James H. Dunlap, Chairman of the Ad-Hoc Steering Committee on professional Liability, requested that the House go into executive session, and this was approved.

Following the executive session, Dr. McFadden called for approval of the minutes of the 1975 Fall Session, as printed in the December, 1975, issue of the Nebraska Medical Journal, and these were approved as printed.

Dr. Francis questioned the mandatory assessment whether it was to be an assessment on 1975 members or on 1976 members, and he asked for a ruling of the House on this matter. Dr. McFadden said that this would be studied and brought back at a later session.

Members to serve on Reference Committees were selected and approved by the House.

The following Nominating Committee was selected and approved:

1st District - Dr. M. M. Steinberg, Omaha
2nd District - Dr. Dale Ebers, Lincoln
3rd District - Dr. M. E. Samuelson, Wymore
4th District - Dr. Roger Massie, Plainview
5th District - Dr. James Bridges, Fremont
6th District - Dr. Richard Pitsch, Seward
7th District - Dr. R. L. Cassel, Fairbury
8th District - Dr. Thomas Wallace, Gordon
9th District - Dr. M. L. Chaloupka, Broken Bow
10th District - Dr. R. A. Cottingham, McCook
11th District - Dr. Bruce Claussen, North Platte
12th District - Dr. Alvin Armstrong, Scottsbluff

Assignment of committee reports and resolutions contained in the Handbook were made as follows:

Reference Committee #1
Annual Audit
Board of Directors
Policy Committee
Resolution #1 - Greater Omaha — Unions
Resolution #11 - Lancaster County — State Utilization Review
Resolution #15 - Lancaster County — Determination of Death

Reference Committee #2
Delegate to the A.M.A.
Nebraska Medical Foundation, Inc.
Resolution #4 - Adams County — New Claim Statements by Nebraska Department of Public Welfare
Resolution #9 - Greater Omaha — Increase in Ethics Curriculums
Resolution #10 - Lancaster County — Completion of Recertification Forms
Resolution #13 - Lancaster County — Location of Physicians Offices

Reference Committee #3
Life Membership Requests
Ad-Hoc Committee on PSRO
State Peer Review
Resolution #8 - Greater Omaha — Life Membership
Resolution #12 - Lancaster County — Professional Services Review Organizations (PSRO)

Reference Committee #4
Insurance and Prepayment Medical Care
Sub-Committee on Athletic Injuries
Resolution #2 - Greater Omaha — Utilization of Relative Value Study
Resolution #5 - Greater Omaha — Physician Reimbursement under Medicare-Medicaid
Resolution #6 - Greater Omaha — Patient Reimbursement by Third Party Payers
Resolution #17 - Saline County — Physicians Reimbursement and Equal Rights

Reference Committee #5
Ad-Hoc Steering Committee on Professional Liability
Public Relations
Resolution #3 - Greater Omaha — Professional Liability Counter Action
Resolution #7 - Greater Omaha — Malpractice Legislation Continuing Study
Resolution #16 - Lancaster County — Medical Liability Act (LB 434)

Reference Committee #6
Geriatrics
Health Education in Schools and Colleges
Medical Education
Resolution #14 - Lancaster County — Health Care Coalition

Resolutions from the floor were called for, and Dr. Truhlsen presented Resolution #18 from the Greater Omaha Medical Society, re: Compulsory Federal Health Insurance. This was referred to Reference Committee #4.

There being no further business, the House was recessed until Monday morning.

SECOND SESSION

The second session of the House of Delegates was held on May 3, 1976. The meeting was called to order by the Vice Speaker, Dr. Charles W. Landgraf, Jr.

A call for a quorum showed 67 delegates present, and the House was declared in session.

Dr. Landgraf called for approval of the minutes of the first session, and these were approved as printed.

Reports of the Reference Committees were called for and the following were presented.

Reference Committee #1

Reference Committee #1 considered three reports and three resolutions. Your Reference Committee submits the following report and recommendations:

(1) ANNUAL AUDIT REPORT

Your Reference Committee first considered the Annual Audit Report as printed in the Handbook.

Recommendation:

Your Reference Committee recommends approval of this report as presented.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF THE BOARD OF DIRECTORS

Recommendation:

Your Reference Committee recommends the Report of the Board of Directors be accepted as presented, with the additional recommendation that the membership committee note the number of non-members and be more active in recruiting both those physicians in active practice and in training.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) REPORT OF THE POLICY COMMITTEE

Your Reference Committee considered the Policy Committee Report as printed in the Handbook.

Recommendation:

Your Reference Committee recommends that the report be accepted as printed, with these additional recommendations:

(a) That the Policy Committee move forward rapidly to obtain a declaratory judgment on the constitutionality of LB 434.

(b) That any funds from the assessment should remain in a separate fund for further use in matters pertaining specifically to professional liability.

(c) That these funds may be expended at the discretion of the Policy Committee, but all expenditures must be accounted for to the NMA Board of Directors.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) RESOLUTION #1 — GREATER OMAHA MEDICAL SOCIETY — UNIONS

Testimony was received from the Delegate to the AMA on the following resolution:

WHEREAS, the Report U was adopted at the Clinical Convention of the AMA, December, 1975; and

WHEREAS, this report is clearly an endorsement of trade union tactics (collective bargaining) and trade unionism as a means of discussion and negotiation for the medical profession; and

WHEREAS, this resolution (Report U) is in conflict with previous actions taken by the House of Delegates (see Resolution #50, "Strikes," AMA, June, 1975); therefore be it

RESOLVED, that the AMA reaffirm its position in Report U to "aid and assist" interns and residents where they are in conflict with hospitals; and be it further

RESOLVED, that this aid and comfort must be rendered on merit in the form of advise, counsel, and even financial support but does not include the endorsement of collective bargaining or trade unionism for the American Medical Association.

Recommendation:

Your Reference Committee recommends the adoption of this resolution as presented in the Handbook.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(5) RESOLUTION #11 — LANCASTER COUNTY MEDICAL SOCIETY — STATE UTILIZATION REVIEW

Testimony was received from several physicians present indicating that the conditions alluded to in the following resolution are of serious concern:

WHEREAS, the utilization review mechanism of the Nebraska Department of Public Welfare at times arbitrarily decides that a patient's stay in the hospital was either not required or was unnecessarily prolonged; and

WHEREAS, the above creates costs that are later reflected in increased room rates as paid for by other private patients and insurance companies; and

WHEREAS, there is a higher percentage of welfare patient admissions that require additional documentation before payment is received which requires additional paperwork, physician and secretarial time;

THEREFORE BE IT RESOLVED, that the Policy Committee of the Nebraska Medical Association review the above mechanism and present a follow-up report at the Fall Session of the House of Delegates.

Recommendation:

Your Reference Committee recommends this resolution be approved with the addition in the THEREFORE BE IT RESOLVED, following the word "Association," "perhaps with a special task force." This would then read as follows:

"THEREFORE BE IT RESOLVED, that the Policy Committee of the Nebraska Medical Association, perhaps with a special task force, review the above mechanism and present a follow-up report at the Fall Session of the House of Delegates."

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(6) RESOLUTION #15 — LANCASTER COUNTY MEDICAL SOCIETY — DETERMINATION OF DEATH

Recommendation:

Your Reference Committee recommends adoption of the following resolution as printed in the Handbook:

WHEREAS, a recent State Supreme Court decision was held that the determination of death is a matter of physician-patient relationship;

THEREFORE BE IT RESOLVED, that the

Nebraska Medical Association reaffirm the philosophy that the determination of the event of death is a medical decision.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

MR. SPEAKER, I MOVE THE ADOPTION OF THE REPORT OF YOUR REFERENCE COMMITTEE #1, AS A WHOLE. This was approved by the House.

Respectfully submitted,
Dr. Robert B. Benthack, Wayne, Chairman
Dr. Michael J. Haller, Omaha
Dr. Herbert E. Reese, Lincoln

Reference Committee #2

Reference Committee #2 considered two reports and four resolutions. Your Reference Committee submits the following report and recommendations:

(1) REPORT OF THE DELEGATE TO THE AMA — CLINICAL MEETING

The Report of the Delegate to the AMA — Clinical Meeting was reviewed and many items were discussed in detail with Dr. Schenken. Most items were submitted for informational purposes, however many had not been specifically brought to the attention of the state or local medical societies as recommended.

Recommendation:

Your Reference Committee recommends that the staff of the Nebraska Medical Association review all actions taken by the AMA House of Delegates at both sessions and forward information to the appropriate committee of the NMA or the appropriate County Medical Societies for study and implementation.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF THE NEBRASKA MEDICAL FOUNDATION, INC.

The report was reviewed and accepted. In addition, information was submitted that loans presently number 12 to 15 per year at an average of approximately $1500 per loan, with a simple interest rate of 8%. Notes must be co-signed by parents or guardians. Special consideration is given for those students who apply for loans for medical research purposes. It was suggested bequests and memorials be encouraged for the Nebraska Medical Foundation.

Recommendation:

Your Reference Committee recommends the approval of this report and the additional information submitted.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) RESOLUTION #4 — ADAMS COUNTY MEDICAL SOCIETY — NEW CLAIM STATEMENTS BY THE NEBRASKA DEPARTMENT OF PUBLIC WELFARE

The following resolution was discussed, and no adverse testimony was heard:

WHEREAS, the new handbook issued last October by the Nebraska Department of Public Welfare states that all providers of services to Title XIX patients must certify in writing that "the amounts claimed are in accordance with the regulations of the Department of Public Welfare, that no additional charge has been or will be claimed, that each service is documented and the documentation is open to Department of Public Welfare audit;" and

WHEREAS, claim statements furnished by the Nebraska Department of Public Welfare used for billing for such services also contain the same certification, required to be signed by the provider; and

WHEREAS, requiring providers of health services to sign such certification may result in a number of undesirable results, such as interference in the right of a patient to choose his own doctor, the right of the doctor to provide services to his patients, the right of the doctor to participate or not participate in third party payment of fees for his services on his patients, and the possibility of demand being made by the Department of Public Welfare to come into his office and audit his financial records; therefore

BE IT RESOLVED, that the Nebraska Medical Association use all means at its disposal to secure an end to such requirement for this certification, and ask the Nebraska Department of Public Welfare to cease any further efforts, now and in the future, to require any such certification.

Recommendation:

Your Reference Committee recommends acceptance of this resolution and referral to the appropriate NMA committee for implementation.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) RESOLUTION #9 — GREATER OMAHA MEDICAL SOCIETY — INCREASE IN ETHICS CURRICULUMS

The following resolution was reviewed in some detail. The present curriculum in each medical school was discussed.

WHEREAS, there has been increased emphasis on observation of Medical Ethics in the practice of medicine; and

WHEREAS, the American Medical Association has recently begun an intensive effort in the study of ethics as practiced not only by the medical profession, but by other professions and the business world; and

WHEREAS, the physicians of America are increasingly being held accountable for the highest standard of ethics; and

WHEREAS, Creighton University School of Medicine and the University of Nebraska College of Medicine currently offer limited instruction for students and house staff; therefore

BE IT RESOLVED, that the Nebraska Medical Association encourage the further development of "Medical Ethics" teaching in both institutions, offering assistance as requested.

Recommendation:

Your Reference Committee recommends acceptance of this resolution as presented.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(5) RESOLUTION #13 — LANCASTER COUNTY

MEDICAL SOCIETY — LOCATION OF PHYSICIANS OFFICES

The following resolution was reviewed, and the problems inherent in this situation were presented as developed by a committee of the Lancaster County Medical Society.

WHEREAS, the American Medical Association's Council on Medical Services in 1960 indicated that physician's offices in or adjacent to hospitals did not constitute a major move towards the practice of medicine by hospitals; and

WHEREAS, there is a lack of current information on organized medicine's stand pertaining to physician's offices owned and/or controlled by hospitals in close proximity to respective hospitals; and

WHEREAS, identification of pros and cons to the above would help clarify the situation;

THEREFORE BE IT RESOLVED, that the Nebraska Medical Association review this resolution and present a follow-up report at the Fall Session of the House of Delegates; and

BE IT FURTHER RESOLVED, that a resolution asking for an up-dated report on the above subject be presented to the American Medical Association.

Recommendation:

Your Reference Committee recommends acceptance of this resolution with referral to the Hospital and Professional Relations Committee for review and report back at the 1976 Fall Session of the House of Delegates of the Nebraska Medical Association.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(6) RESOLUTION #10 — LANCASTER COUNTY MEDICAL SOCIETY — COMPLETION OF RECERTIFICATION FORMS

The following resolution was reviewed:

WHEREAS, the completion of recertification forms of the Nebraska Department of Public Welfare for patients in intermediate care facilities every 60 days requires an excessive amount of physician's, nurse's and secretarial time; and

WHEREAS, the time required to complete and review the forms could be much better spent in patient care; and

WHEREAS, the recertification time span could be eliminated or reduced; the form changed to a "check off form" or a combination of the two;

THEREFORE BE IT RESOLVED, that the Nebraska Medical Association review the intent of this resolution with the Department of Public Welfare and present a follow-up report at the Fall Session of the House of Delegates.

Recommendation:

Your Reference Committee recommends this resolution be amended by changing the word, "reduced" in the third WHEREAS, to "extended;" and further that in the THEREFORE BE IT RESOLVED, that the words "appropriate committee of" be inserted after the words, ". . . RESOLVED, that the." This would then read as follows:

WHEREAS, the recertification time span could be eliminated or extended, the form changed to a "check off form" or a combination of the two;

THEREFORE BE IT RESOLVED, that the appropriate committee of the Nebraska Medical Association review the intent of this resolution with the Department of Public Welfare and present a follow-up report at the Fall Session of the House of Delegates.

Your Reference Committee recommends acceptance of this resolution as amended.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

MR. SPEAKER, I MOVE THE ADOPTION OF THE REPORT OF YOUR REFERENCE COMMITTEE #2, AS A WHOLE. This was approved by the House.

Respectfully submitted,
Dr. Stanley M. Truhlsen, Omaha, Chairman
Dr. Kenton L. Shaffer, Kearney
Dr. Robert C. Weldon, Nebraska City

Reference Committee #3

Reference Committee #3 considered one request, two reports and two resolutions. Your Reference Committee submits the following report and recommendations:

(1) LIFE MEMBERSHIP REQUESTS

Your Reference Committee reviewed the following requests of 27 members for Life Membership in the Nebraska Medical Association, as listed in the Handbook. The application of Dr. J. H. Donaldson of McCook was deemed to be incomplete. The other 26 applications were complete and in order.

Dr. George Paul Charlton, Hastings
Dr. L. S. McNeill, Hastings
Dr. O. L. Seng, Alliance (effective 1977)
Dr. F. P. Sucgang, Alliance (effective 1977)
Dr. D. B. Wengert, Fremont
Dr. R. W. Taylor, Beatrice
Dr. D. O. Hughes, Fairbury
Dr. Henry Blum, Lincoln
Dr. G. F. Waltemath, North Platte
Dr. Nancy Catania, Omaha (effective 1977)
Dr. Joseph J. Comine, Omaha
Dr. Chester H. Farrell, Omaha (effective 1977)
Dr. Arthur M. Greene, Omaha (effective 1977)
Dr. John J. Grier, Omaha
Dr. William R. Hamsa, Sr., Omaha
Dr. E. J. Kirk, Omaha
Dr. Leon S. McGoogan, Omaha
Dr. William F. Novak, Omaha
Dr. Joseph E. Sobota, Omaha
Dr. Paul Q. Baker, Scottsbluff
Dr. W. C. Harvey, Sr., Gering
Dr. A. B. Anderson, Pawnee City
Dr. Claude T. Mason, Superior
Dr. H. V. Nuss, Sutton
Dr. J. H. Donaldson, Jr., McCook
Dr. C. D. Howard, Blair
Dr. Harley Eklund, Osceola

Recommendations:

Your Reference Committee submits the following recommendations:

1. That action on the application of Dr. Donaldson be deferred until the application is complete.
2. That all the other applications for Life Membership be approved.

MR. SPEAKER, I MOVE THE ADOPTION OF

THIS SECTION OF OUR REPORT. This was approved by the House.

(2) RESOLUTION #8 — GREATER OMAHA MEDICAL SOCIETY — LIFE MEMBERSHIP

Testimony before your Reference Committee indicated that the intent of this resolution was to make it possible for a member to gain Life Membership status upon retirement even if he had not been in practice the currently required 45 years following graduation from medical school. It was also testified that the By-Laws do provide for such extenuating circumstances. This resolution read as follows:

> WHEREAS, the Nebraska Medical Association By-Laws, at present, limit request for Life Membership to physicians who have been in practice for 45 years since graduation from medical school; and
>
> WHEREAS, this length of time has proven a detriment to some members; therefore be it
>
> RESOLVED, that the Nebraska Medical Association alter their By-Laws to reduce that limitation to 40 years.

Recommendation:

Your Reference Committee recommends that this resolution be filed with the Constitution and By-Laws Committee with instructions that the By-Laws be revised to reflect the intent of the resolution if they do not already do so.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) REPORT OF THE STATE PEER REVIEW COMMITTEE

In its report, the State Peer Review Committee asked for guidelines in carrying out peer review activities in the state. Since the State Peer Review Committee is a standing committee of the Nebraska Medical Association, your Reference Committee believes the guidelines for the committee's activities should be derived from the By-Laws which created it and from the committee itself with the advice and consent of the House of Delegates.

Recommendation:

Your Reference Committee recommends that the State Peer Review Committee develop guidelines for governing its activities and report its recommendations to the next session of the House of Delegates.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) RESOLUTION #12 — LANCASTER COUNTY MEDICAL SOCIETY — PROFESSIONAL SERVICES REVIEW ORGANIZATIONS (PSRO)

Your Reference Committee considered the following resolution:

> WHEREAS, the Nebraska Medical Association has consistently recognized the necessity of peer review as an article of faith; and
>
> WHEREAS, the Nebraska Medical Association has steadfastly contended that peer review can be accomplished successfully only at the local level; and
>
> WHEREAS, current PSRO legislation assumes a **priori** that statewide peer review organizations under federal control will result in better health care at lower cost; and
>
> WHEREAS, there is no evidence that creation of a statewide or areawide PSRO under federal control would result in better and less costly health care than would result in states or areas without such a PSRO; and
>
> WHEREAS, current PSRO legislation is being implemented without scientifically constructed control groups (states without a PSRO under federal control) for determining if the a **priori** assumptions of current PSRO legislation are correct;
>
> THEREFORE BE IT RESOLVED, that the Nebraska Medical Association reaffirm its previously stated belief in peer review administered and controlled at the local level; and
>
> BE IT FURTHER RESOLVED, that the Nebraska Medical Association point out to appropriate authorities that the a **priori** assumptions of current PSRO legislation cannot be proved or disproved without comparing PSRO states with non-PSRO states; and
>
> BE IT FINALLY RESOLVED, that the Nebraska Medical Association will agree to serve as a non-PSRO state if a mutually agreed upon scientific method for collecting and interpreting data is constructed prior to any comparison studies.

Testimony was generally in favor of this resolution provided that the phrase "agree to serve" in the BE IT FINALLY RESOLVED be replaced by the phrase "consider serving." This would then read:

> BE IT FINALLY RESOLVED, that the Nebraska Medical Association will consider serving as a non-PSRO state if a mutually agreed upon scientific method for collecting and interpreting data is constructed prior to any comparison studies.

Recommendation:

Your Reference Committee recommends the adoption of this resolution as modified.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(5) REPORT OF THE AD-HOC COMMITTEE ON PSRO

Testimony before your Reference Committee once again recognized the yoeman work of the Ad-Hoc Committee on PSRO. It was felt that the report of the committee should be accepted for informational purposes; that the committee should continue to monitor developments pertaining to PSRO; and to champion the current views of the House of Delegates regarding PSRO.

Recommendation:

Your Reference Committee recommends:

1. That the Report of the Ad-Hoc Committee on PSRO be accepted for informational purposes.
2. That the Ad-Hoc Committee on PSRO continue to monitor developments and report its recommendations to the next session of the House of Delegates.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

MR. SPEAKER, I MOVE THE ADOPTION OF THE

REPORT OF YOUR REFERENCE COMMITTEE #3, AS A WHOLE. This was approved by the House.

Respectfully submitted,
Dr. John Porterfield, Lincoln,
Chairman
Dr. Gordon Francis, Grand Island
Dr. Allan Landers, Scottsbluff

Reference Committee #4

Reference Committee #4 considered two reports and five resolutions. Your Reference Committee submits the following report and recommendations:

(1) REPORT OF THE INSURANCE AND PRE-PAYMENT MEDICAL CARE COMMITTEE

Your Reference Committee studied this report and heard no testimony in regard to it.

Recommendation:

Your Reference Committee recommends acceptance of this report as submitted.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF THE SUB-COMMITTEE ON ATHLETIC INJURIES

Recommendation:

Your Reference Committee has studied this report and recommends its approval as published.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) RESOLUTION #2 — GREATER OMAHA MEDICAL SOCIETY — UTILIZATION OF RELATIVE VALUE STUDY

Your Reference Committee heard considerable discussion regarding the following resolution:

> WHEREAS, the Relative Value Study (RVS) is basically a reflection of the relative values of different medical services; and
>
> WHEREAS, the RVS was originally developed to aid third party payers in determining compensation for medical services by the use of their own conversion factors; and
>
> WHEREAS, the RVS provides the means by which physicians may develop uniform fee schedules which might be subject to legal repercussions; therefore be it
>
> RESOLVED, that the Nebraska Medical Association view the Relative Value Study as merely a guideline for the relative value of different medical services and not in any way as a recommended method of determining medical fees by the individual physician.

Recommendation:

Your Reference Committee recommends this resolution be amended by deleting the entire RESOLVED and substituting the following:

> RESOLVED, (1) that the Nebraska Medical Association view the 1975 Nebraska Relative Value Study five-digit code (AMA CPT) as the recommended code for currently classifying medical procedures in this state; (2) the relative values listed are merely a guideline for the relative value of different medical services and not in any way as a recommended method of determining medical fees by the individual physician.

Your Reference Committee recommends adoption of this resolution in this amended form.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) RESOLUTION #5 — GREATER OMAHA MEDICAL SOCIETY — PHYSICIAN REIMBURSEMENT UNDER MEDICARE-MEDICAID

Your Reference Committee heard considerable testimony concerning the need for the following resolution:

> WHEREAS, pending legislation before Congress is in violation of Section 1801 of the 1965 Medicare Act which forbad interference in the practice of medicine; therefore be it
>
> RESOLVED, that the Nebraska Medical Association is opposed to any legislation which interferes with the practice of medicine, including interference with:
>
> 1. The right to determine conditions under which professional services are provided by physicians;
> 2. The right to freely contract with others, including institutions;
> 3. The right to be self-employed; and
> 4. The right to employ physician "extenders;"
>
> and be it further
>
> RESOLVED, that this resolution be introduced into the House of Delegates of the American Medical Association at its next annual meeting.

There was no dissenting testimony. This resolution is engendered by numerous legislative bills currently introduced into the Congress of the United States. S. 3205 (the Talmadge Bill) is an example of this type of legislation. In essence, this particular bill, and portions of numerous other currently introduced bills, will serve as extensive revisions of the current Medicare-Medicaid Act. This type of legislation purported to be directed at "hospital-associated physicians" will in actuality effect vast and far-reaching changes upon the current medical scene.

Recommendation:

Your Reference Committee recommends adoption of this resolution as published.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(5) RESOLUTION #6 — GREATER OMAHA MEDICAL SOCIETY — PATIENT REIMBURSEMENT BY THIRD PARTY PAYERS

RESOLUTION #17 — SALINE COUNTY MEDICAL SOCIETY — PHYSICIANS REIMBURSEMENT AND EQUAL RIGHTS

Considerable testimony was heard in regard to these two resolutions, which were considered together because of their similar content. These resolutions read as follows:

Resolution #6

> WHEREAS, it is the right and privilege of a physician to enter into a contract with his patient for medical services; and

WHEREAS, it is the right of patient and doctor to agree upon the compensation for these services before they are rendered; and

WHEREAS, organized medicine has strongly encouraged physicians to deal financially with patients directly in order to eliminate the interference by third party payers; be it therefore

RESOLVED, that the Nebraska Medical Association is opposed to discrimination against patients in reimbursement for medical services by third party payers on the grounds of geographic location of patient and doctor.

Resolution #17

WHEREAS, all physicians in our state are licensed by the same agencies, receive equal but variable education, pay taxes based on the same federal, state, and local criteria; and are required to meet equal patterns of providing care; and

WHEREAS, malpractice laws and malpractice insurance rates imply equality of liability coverage and demand basically similar patterns of practice; and

WHEREAS, various third parties (especially Medicare, Medicaid, Blue Cross-Blue Shield, etc.) have attempted to downgrade equality of care provided by some physicians in Nebraska by establishing lower fee profiles for non-metropolitan areas; and

WHEREAS, this results in socio-economic forces that discourages physicians from continued practice in; and, discourages new physicians from locating in non-metropolitan areas; and

WHEREAS, this practice discriminates against the resident of non-metropolitan areas of Nebraska who must pay those portions of the bills not normally covered by the third parties;

THEREFORE BE IT RESOLVED, that the Nebraska Medical Association establishes and affirms its position regarding physician's fees:

1. Each physician should be afforded the right in a free society to establish his own fee based upon his own knowledge of his patients, his costs, his expenses, and his income.
2. Any system of third parties fee reimbursement should not be permitted to sub-divide our state into profile areas based upon rural, urban, geographic, specialty-generalists, or any other false areas.

Recommendation:

Your Reference Committee considers Resolution #6 to be similar to the content of Resolution #17 down to the first portion of the RESOLVED. Because of this, your Reference Committee chose to take no action on Resolution #6, but recommends the adoption of Resolution #17 in an amended form. Your Reference Committee recommends the deletion of Item 2, of the RESOLVED, and substituting the following:

2. Any system of third parties fee reimbursements should be urged not to sub-divide our state into profile areas.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded. Dr. Wilson moved that Resolution #17, as amended by the Reference Committee, be approved as written, but that it be submitted to legal counsel for a legal opinion on this action. This report then to be sent to the Policy Committee and that the Policy Committee take appropriate action. This motion was approved by the House, and this section of the Reference Committee Report was approved as amended.

(6) RESOLUTION #18 — GREATER OMAHA MEDICAL SOCIETY — COMPULSORY FEDERAL HEALTH INSURANCE

This resolution read as follows:

WHEREAS, most of the announced presidential candidates have called for Compulsory Federal Health Insurance; therefore be it

RESOLVED, that the Nebraska Medical Association House of Delegates be polled on the following two questions:

1. Do you endorse Compulsory Federal Health Insurance for the American people?
2. Do you endorse sponsorship by the American Medical Association of a Compulsory Federal Health Insurance Program?

Recommendation:

Your Reference Committee recommends adoption of this resolution with the following recommendations:

1. The polling of the Nebraska Medical Association House of Delegates should be done at the next regularly scheduled meeting of the House of Delegates.
2. The results of the poll should be forwarded to the members of the State Medical Association via the "pink sheet."
3. The results of the poll should further be forwarded to the Policy Committee for such disposition as they deem proper.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded. Dr. Truhlsen moved that Recommendation #1 of the Reference Committee be amended by polling the House of Delegates at their third session on Wednesday. This motion was approved by the House, and this section of the Reference Committee report was adopted as amended.

MR. SPEAKER, I MOVE THE ADOPTION OF THE REPORT OF YOUR REFERENCE COMMITTEE #4 AS AMENDED AS A WHOLE. This was approved by the House.

Respectfully submitted,
Dr. James H. Dunlap, Norfolk,
Chairman
Dr. Frederick F. Paustian, Omaha
Dr. Alvin A. Armstrong, Jr., Scottsbluff

Reference Committee #5

Reference Committee #5 considered two reports and three resolutions. Your Reference Committee submits the following report and recommendations:

(1) REPORT OF THE AD-HOC STEERING COMMITTEE ON PROFESSIONAL LIABILITY

This session of the House of Delegates has already heard in considerable detail the activities and results of this Ad-Hoc Steering Committee. Your Reference Committee would again like to take this opportunity to publicly commend the members of the Ad-Hoc Steering Committee and its several subcommittees for their tremendous efforts involved in bringing about the successful passing of professional liability legislation.

The entire State Medical Association is indebted to their efforts.

The report includes a recommendation for the responsibility of establishing the committee structure and responsibilities for future efforts in this regard to be placed with the NMA Policy Committee. Resolution #16, to be discussed later on, is a further elaboration of this recommendation.

Recommendation:

Your Reference Committee recommends the approval of this report as carried in the Handbook.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF THE PUBLIC RELATIONS COMMITTEE

The Public Relations Committee worked closely with the Ad-Hoc Steering Committee on Professional Liability and should share in commendation for the efforts made to inform both the Legislators and the public about the problems of professional liability insurance. The increased activities and responsibilities of this committee are noted and endorsed.

Recommendation:

Your Reference Committee recommends adoption of this report.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) RESOLUTION #7 — GREATER OMAHA MEDICAL SOCIETY — MALPRACTICE LEGISLATION CONTINUING STUDY

This resolution read as follows:

WHEREAS, the Legislature recently passed LB 434 (703) Medical Malpractice Act and the implications and ramifications are not fully understood; therefore be it

RESOLVED, that the President of the Nebraska Medical Association appoint a study committee to follow-up on the implications of the 1976 malpractice legislation, LB 434 (703) and similar laws elsewhere, and report to the Interim Session.

Recommendation:

Your Reference Committee felt that this resolution could be incorporated into Resolution #16, so it was dropped from further action.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) RESOLUTION #16 — LANCASTER COUNTY MEDICAL SOCIETY — MEDICAL LIABILITY ACT (LB 434)

This resolution contains the same recommendation that is included in the NMA Ad-Hoc Steering Committee on Professional Liability Report, with the addition of listing several areas of specific review. This resolution read as follows:

WHEREAS, the recently passed Medical Liability Act (LB 434) is only a beginning in the resolution of the medical liability problem in Nebraska; and

WHEREAS, many problems in this area will continue to need study and implementation;

THEREFORE BE IT RESOLVED, that the Policy Committee of the Nebraska Medical Association utilizing present committees and/or Ad-Hoc Committees continue to pursue the problems and ramifications of medical liability; and

BE IT FURTHER RESOLVED, that the following items be reviewed and handled appropriately:

1. Constitutionality of the present act.
2. Continued legislative study to modify or improve the present legislation.
3. Professional education regarding the act.
4. Renewed discussion with liability carriers to include a review of types of policies possible under the act with a goal of attracting competitive carriers to the state.
5. Professional and hospital risk prevention and management programs.
6. Actuarial evaluation of the excess liability fund.
7. Long range study to consider future alternatives such as compensation systems, methods of financing, arbitration, etc., and
8. Reassessment of the Nebraska Medical Association's political functions and activities.

BE IT FINALLY RESOLVED, that a follow-up report be presented at the Fall Session of the House of Delegates.

Recommendation:

Your Reference Committee recommends adoption of this resolution as presented.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(5) RESOLUTION #3 — GREATER OMAHA MEDICAL SOCIETY — PROFESSIONAL LIABILITY COUNTER ACTION

This resolution read as follows:

WHEREAS, the medical liability crisis in the United States is the foremost problem facing the medical profession at this time; and

WHEREAS, the solution of the problem is not imminent; and

WHEREAS, many malpractice suits in this country are without adequate grounds; and

WHEREAS, in the past and currently there are many lawyers ready and willing to take on such malpractice suits against reputable physicians; and

WHEREAS, several State Medical Associations are currently in process of taking action to form society sponsored efforts to assist their physician membership in counter suits against patients and their lawyers; and

WHEREAS, the Illinois State Medical Society, in February, 1976, assessed their membership $75 each to form a $750,000 fund to assist Illinois physicians who believe they have "been named wrongly in malpractice suits;" and

WHEREAS, deterrence of such wrongful litigation is one of the solutions to this problem; therefore

BE IT RESOLVED, that the President of the Nebraska Medical Association appoint an Ad-Hoc Committee to evolve a plan to aide Nebraska Medical Association physicians who have been wrongly named in malpractice suits. This plan then to be submitted for approval to the next session of the House of Delegates.

Considerable discussion was heard in reference to this resolution. Recommendations were made that the Association needs to take some positive action in this field, for the current professional liability legislation contains no provisions for sanctions against wrongful litigation. It was also mentioned that other State Medical Associations have already instituted this type of action in behalf of its members.

Recommendation:

Your Reference Committee recommends the adoption of this resolution with the following amendments:

In the first WHEREAS, insert the words, "one of" between the words "is" and "the." Change the word "problem" to "problems."

Delete the second, fourth and sixth WHEREAS.

This resolution would then read as follows:

> WHEREAS, the medical liability crisis in the United States is one of the foremost problems facing the medical profession at this time; and
>
> WHEREAS, many malpractice suits in this country are without adequate grounds; and
>
> WHEREAS, several State Medical Associations are currently in process of taking action to form society sponsored efforts to assist their physician membership in counter suits against patients and their lawyers; and
>
> WHEREAS, deterrence of such wrongful litigation is one of the solutions to this problem; therefore
>
> BE IT RESOLVED, that the President of the Nebraska Medical Association appoint an Ad-Hoc Committee to evolve a plan to aide Nebraska Medical Association physicians who have been wrongly named in malpractice suits. This plan then to be submitted for approval to the next session of the House of Delegates.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

MR. SPEAKER, I MOVE THE ADOPTION OF THE REPORT OF YOUR REFERENCE COMMITTEE #5, AS A WHOLE.

Respectfully submitted,
Dr. Richard D. Gentry, Falls City, Chairman
Dr. John T. McGreer, III, Lincoln
Dr. Richard E. Donaldson, North Platte

Reference Committee #6

Reference Committee #6 considered three reports and one resolution. Your Reference Committee submits the following report and recommendations:

(1) REPORT OF THE GERIATRICS COMMITTEE

No one appeared to discuss this report.

Recommendation:

Your Reference Committee recommends approval of this report as presented.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF THE MEDICAL EDUCATION COMMITTEE

Dr. John W. Smith, Chairman of the Medical Education Committee, discussed the report. The first site survey with respect to Category I accreditation will be in one of the Omaha hospitals. It is the committee's desire that site surveys be conducted across the entire state in all sized hospitals in order to make Category I accredited programs readily available to all physicians in the state.

The Medical Education Committee suggested that specialty society or association requirements for certification be accepted to fulfill requirements as a condition for relicensure, as passed by the Legislature this year.

Recommendation:

Your Reference Committee recommends approval of this report as presented.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded. Dr. Francis moved to amend this section by recommending the requirements of the NMA for recertification be drawn by the Medical Education Committee of this Association, and be reported at the next session of the House of Delegates for their approval. This motion was approved by the House, and this section of the reference Committee Report was adopted as amended.

(3) REPORT OF THE HEALTH EDUCATION IN SCHOOLS AND COLLEGES COMMITTEE

Dr. S. I. Fuenning, Chairman of the Health Education in Schools and Colleges Committee, was present to discuss this report.

In the second paragraph of this report, it should be noted the National Center for Health Education is a private, non-profit organization and has as its overall objective to improve the health of the American people through health education.

The discussion centered around the fact our Association should vigorously support all attempts at complete health education, including sex education. It was emphasized that these programs should begin early in the educational process as early as the third and fourth-grade students.

All discussants urged strong support for ideas presented in this report and for the work of this committee.

Recommendation:

Your Reference Committee recommends approval of this report as presented.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) RESOLUTION #14 — LANCASTER COUNTY MEDICAL SOCIETY — HEALTH CARE COALITION

This resolution read as follows:

> WHEREAS, it is recognized that all health care professionals are a part of the total health care delivery system of Nebraska and the United States; and
>
> WHEREAS, it is extremely important to have a united front with public and political support; and
>
> WHEREAS, professional organizations such as the Nebraska/American Medical Association, the Nebraska/American College of Surgeons, the Nebraska/American Hospital Association, the Nebraska/

American Nurses Association, and the Nebraska American Society of Internal Medicine working on such matters as quality of care, access to health care, manpower, education, research, health care facilities, state and federal rules/regulations would be of great interest and value to the public and legislative bodies;

THEREFORE BE IT RESOLVED, that the Policy Committee of the Nebraska Medical Association consider the formation of a Coalition of Health Care Professionals to promote the interests of health care providers and consumers on a united basis and present a report at the Fall Session of the House of Delegates; and

BE IT FURTHER RESOLVED, that a resolution asking for the consideration of the formation of a Coalition of Health Care Professionals on a national scale be presented to the American Medical Association.

A member of the Lancaster County Medical Society was present to discuss this resolution. It was mentioned that from experience, with respect to legislation on the professional liability bill, that there is a great need for closer communication between the various health care professionals. Many Unicameral members have expressed a desire for such assistance.

Recommendation:

Your Reference Committee recommends acceptance of this resolution with the deletion of the last RESOLVED.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

MR. SPEAKER, I MOVE THE ADOPTION OF THE REPORT OF YOUR REFERENCE COMMITTEE #6, AS AMENDED, AS A WHOLE. This was approved by the House.

Respectfully submitted,
Dr. R. F. Sievers, Blair,
Chairman
Dr. E. G. Brillhart, Columbus
Dr. John E. Murphy, Aurora

Dr. Schenken was granted permission of the floor to read the following letter he had written to President Ford concerning the cost of medical care, which according to a news item appearing in the Omaha World Herald, will be investigated by the President's Council:

President Gerald R. Ford
The White House
Washington, D.C. 20500

Dear Mr. President:

According to the enclosed news item printed in the Omaha World Herald on April 26, 1976, your President's Council will investigate the cost of medical care in order to determine why it has allegedly outstripped the Consumer Price Index.

All this will accomplish is to increase fear of further federal intervention or controls which if applied will curtail services or stifle progress or both. Why can't government be content with prosecuting the few who are guilty of fraud, as in the Medicaid scandal, and allow the many to continue to provide the highest quality of medical services available in the world?

There are many reasons why Medicare-Medicaid costs have risen sharply during the last ten years, especially during the last three. The major problem, however, is that the federal government has promised to deliver much more than it is willing or able to do.

The following is a list of conditions which have materially contributed to the escalation of medicare care costs exclusive of the major factors of general unlimited demands for services and inflation. Most of these are uncontrollable by the medical profession and hospitals.

I. High cost of technical equipment and personnel in order to provide phenomenal and necessary advances in medical care such as coronary surgery, coronary and intensive hospital care, linear accelerators, prolonged care of the critically ill, sophisticated chemical analyses of blood, EMI and whole body scanners, and numerous other expensive advances.

II. Widespread use of expensive multiphasic screening for the well person while its value is still in the experimental stage.

III. Application of the minimum wage laws to hospitals.

IV. Mandatory practice of "defensive" medicine by physicians and hospitals because of the unconscionable court awards for alleged negligence.

V. Tenfold or more increase in the cost of liability insurance for physicians and hospitals.

VI. Demands for medical services by the well and near-well have added at least 20% to the medical care load, because Medicare and Medicaid opened the doors to medical and hospital services through reducing the barriers of entry into the system.

VII. Unionization of hospital personnel.

VIII. OSHA requirements applicable to hospitals.

IX. New fire safety codes.

X. Unemployment insurance benefit for hospital personnel, added during the last three years.

XI. Enormous cost of meeting federal regulations of at least 50 agencies and the added burden of preparing for and spending time with inspectors.

XII. Cost of care of the terminal patient previously cared for at home; now because of federal subsidy, he is shunted into an institution. It is estimated that this may have a six to nine billion dollar potential liability for government.

If the government and the public want to continue to have the best medical care in the world, increasing federal controls will only reduce progress and services. Great Britain, since 1948 has been in the grip of central planning and government controls and the entire medical care system is facing bankruptcy. We can't afford this in the USA.

Let's look at the root causes and retain the good and eliminate the bad. The bad is identified largely as federal interference with the medical care system. Current (PL 93641) and pending (S. 3205) (HR12678) legislation will only worsen the problem!

Sincerely yours,
S/ John R. Schenken, M.D.
John R. Schenken, M.D.

Enclosure
JRS:cb

Dr. Gogela suggested that every member of the House of Delegates should receive a copy of this letter and that this should be sent to the news media, possibly to appear in the Lincoln Journal and Omaha World Herald as an open letter. The Chair ruled that this would be done.

There being no further business, the House of Delegates was recessed until Wednesday morning.

THIRD SESSION

The third session of the House of Delegates was held May 5, 1976. The meeting was called to order by the Speaker, Dr. McFadden.

A call for a quorum showed 49 delegates present, and the meeting was declared in session.

Dr. McFadden called for approval of the minutes of the second session, and these were approved as printed.

Dr. McFadden called for approval of the minutes of the second session of the Board of Councilors, and these were approved as printed.

The following oral reports were presented to the House:

Mrs. J. Whitney Kelley, Nebraska Chairman, AMA-ERF

Mrs. Y. Scott Moore, Immediate Past President, NMA Auxiliary

Dr. McFadden called for the results of the ballot on Resolution #18, Compulsory Federal Health Insurance. The vote was as follows:

Do you endorse Compulsory Federal Health Insurance for the American People?
Yes: 1 No: 48

Do you endorse sponsorship by the American Medical Association of a Compulsory Federal Health Insurance Program? Yes: 5 No: 39
Uncertain: 1 Not Voting: 4

The Chair called for the report of the Nominating Committee, and Dr. Thomas Wallace, Chairman, presented the following slate of officers:

President-Elect — Dr. Arnold W. Lempka, Omaha
Councilors:
  5th District — Dr. Warren R. Miller, Columbus
  6th District — Dr. Richard M. Pitsch, Seward
  7th District — Dr. Clarence Zimmer, Friend
  8th District — Dr. James E. Ramsay, Atkinson
Delegate to A.M.A. — Dr. John R. Schenken, Omaha
Alternate Delegate to A.M.A. — Dr. John D. Coe, Omaha
Delegate, North Central Medical Conference — Dr. Russell L. Gorthey, Lincoln

There being no further nominations from the floor, the slate of officers presented by the Nominating Committee were approved.

In response to the question raised by Dr. Francis at the first session concerning the assessment, Dr. McFadden read the following statement of the Policy Committee.

> "The Policy Committee has interpreted the action of the House in the following manner.
>
> "The House approved an assessment with the intent that it be applicable to all physicians paying dues in 1976. The House provided for and urged that members pay the assessment in 1975 because of the need for funds to pay incurred expenses.
>
> "The House indicated approval to solicit Life Members for voluntary contributions."

Dr. Truhlsen moved that the House go on record in support of this statement of the Policy Committee, and this was approved.

Dr. Cornelius was granted permission of the floor to discuss PL 93-641, concerning Health Systems Agency. He related his experiences with the Greater Nebraska HSA and discussed the members of the Board of Directors and how they were selected.

There being no further business, the House was adjourned.

ADVERTISERS' INDEX

B

Bemidji Clinic, Ltd. 6

Burroughs Wellcome Co. 246A

D

Donley Medical Supply Co. 16

Duncan Aviation, Inc. 5

F

Flint Laboratories 246B, 246C, 246D

L

Eli Lilly and Company 18, 257

N

Norfolk Printing Co., Inc. 17

P

Pharmaceutical Manufacturers Association 14, 15

R

Roche Laboratories 2, 3, 8, 9, 21, 22

Roerig & Co. 12, 13

S

Smith Kline & French Laboratories 10

U

Upjohn Company (The) 11

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August, 1976

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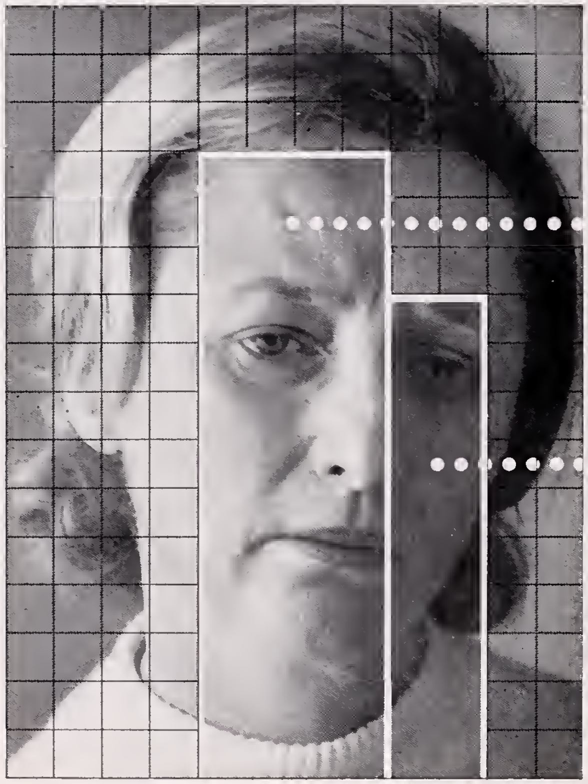

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Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful

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According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as the excessive anxiety is relieved, the depressive symptoms associated with it are also often relieved.

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Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.

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in psychoneurotic
anxiety states
with associated
depressive symptoms

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Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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The Nebraska Medical Journal

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AUGUST 1976 VOL. 61, NO. 8

EDITORIALS —

The Art of Medicine . . . 285
The Government And The Doctor . . . 285
Bookends . . . 285
Not Out Of His Own Mouth . . . 286
Surgical Instruments . . . 286

ORIGINAL ARTICLES —

Propranolol in Antihypertensive Therapy . . . 287
H. Frederick Dalske, Ph.D.
Gerald L. Wolf, M.D., Ph.D.

Behavior Therapy for Obesity: Another Fad or a New Set of Facts?, Part IV . . . 289
William T. McReynolds

Gentamicin Neurotoxicity: A Case Report . . . 291
Barry Kricsfeld, M.D.
Frederick Ware, M.D.

Are the "Fatties" Merely Gluttons? Some Biochemical-physiological Aspects of Normal Obesity . . . 294
Dale P. J. Goldsmith, Ph.D.

Outpatient Initiation of Insulin Treatment in the Juvenile Diabetic . . . 297
Gordon E. Gibbs, M.D.

Psychiatric Aspects of Temporal Lobe Epilepsy . . . 301
James W. Wengert, M.D.
James T. Hartford, M.D.

Diagnosis of Congenital Heart Disease in the Neonate by Non-invasive Methods, Part I . . . 305
Philip J. Hofschire, M.D.
Alan D. Forker, M.D.
Paul K. Mooring, M.D.

DOWN MEMORY LANE . . . 307

FEATURES —

President's Page . . . 308
Welcome New Members . . . 309
The Auxiliary . . . 310

IN MEMORIAM . . . 311
Dr. Siegfried H. Brauer
Dr. Adolph F. Srb

BETWEEN CASES . . . 312

NEBRASKA —

Picture Gallery . . . 314
Our Medical Schools . . . 315
State Organizations . . . 8A

ALL THE STATES —

WashingtoNotes . . . 316
Coming Meetings . . . 318
National Organizations . . . 6A

AROUND THE WORLD —

The Letter Box . . . 319
Books . . . 319
Medicinews . . . 320
It's New . . . 19A

Address all correspondence relating to subscriptions, advertising or address changes to Mr. Ken Neff, Business Manager, 1902 First National Bank Building, Lincoln, Nebraska 68508 Phone: [402] 432-7585.

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Acupuncture Effect on Neurosensory Deafness — S. K. Yarnell et al (G. W. Waylonis, Riverside Methodist Hosp, 3535 Olentangy River Rd, Columbus, OH 43214) Arch Phys Med Rehabil 57:166-168 (April) 1976.

Bilateral neurosurgery deafness offers a unique opportunity to study the effects of acupuncture objectively. By treating only one ear, and using audiometric evaluation techniques instead of subjective evaluations of hearing, an analysis of any achieved improvement seemed feasible. Only patients with well-documented bilateral nerve deafness were accepted into the program. A baseline audiogram with speech discrimination and puretone air and bone conduction thresholds was obtained prior to treatment. Thirty-eight patients underwent ten consecutive acupuncture treatments on one ear only, with the other ear serving as a control. After the course of acupuncture, the audiometrics were repeated by the same audiologist. There was no substantial increase in hearing after acupuncture therapy.

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Compliance With Short-Term Antimicrobial Therapy: Some Techniques That Help — J. Lima et al (L. Nazarian, Anthony L. Jordan Health Center, 82 Holland St, Rochester, NY 14603) Pediatrics 57:383-386 (March) 1976.

Studies in the past decade have established that on the average, approximately one third of patients will adequately comply with a course of prescribed oral therapy, one third will not, and the remainder will do so variably. Factors that influence these proportions in any given situation include the patient's perceived severity of the condition, the complexity of the prescribed regimen, the quality and duration of the patient-physician relationship, and characteristics of the patient. The effect of two reminder devices on compliance with a ten-day antimicrobial prescription was investigated in a health center population. The reminders were a clock printed on the prescription label with appropriate times circled and a 5x7 in bright red sticker to be posted at home. A total of 158 patients were interviewed at home on the ninth or tenth day of therapy, and compliance was estimated by measuring the amount of remaining medication. For children, both reminders improved compliance about twofold over controls. The findings suggest that (1) several simple reminder devices can be effective and (2) the nature of the patient population may be a more important influence on compliance than the relationship to a physician or the type of health care system. In addition, the study demonstrates the influence of the pharmacist on patients' medication-taking behavior.

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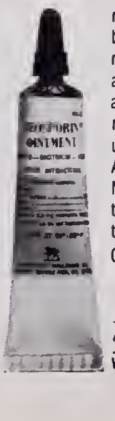

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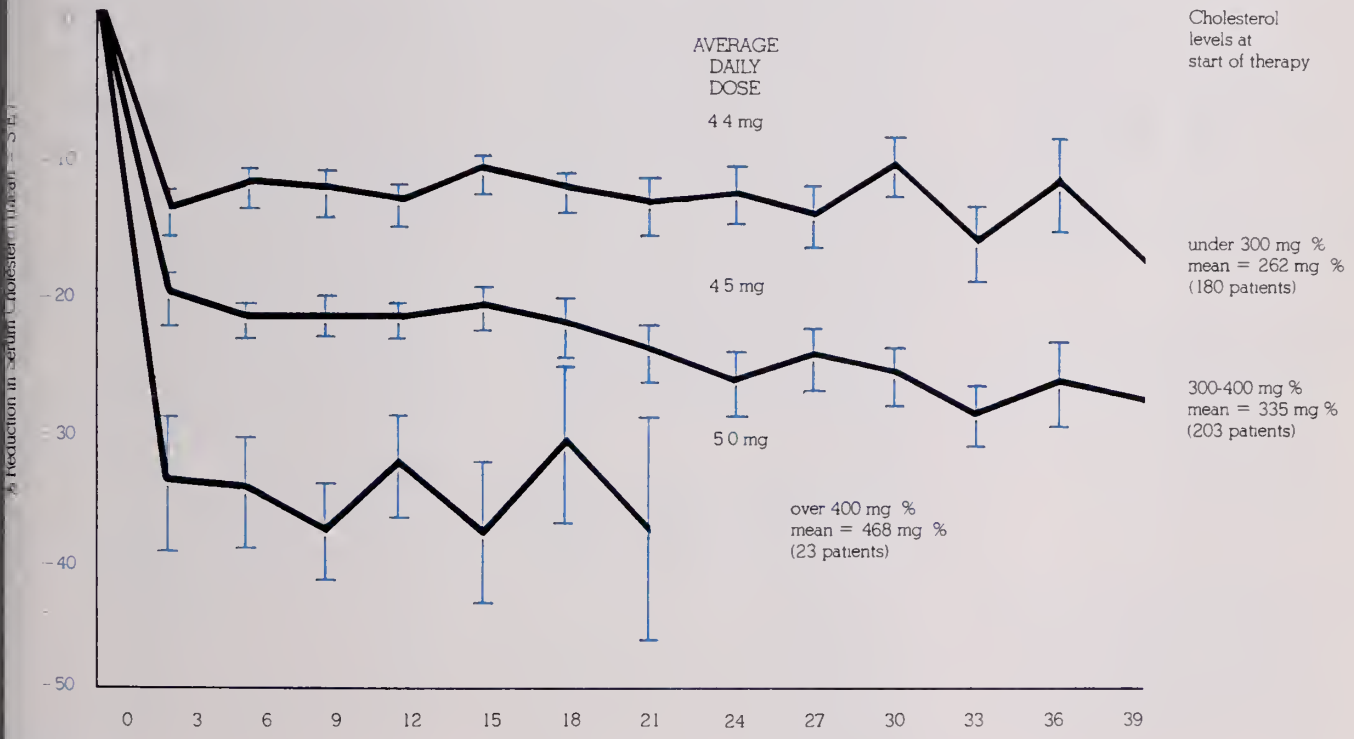

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Contraindications
The administration of CHOLOXIN (sodium dextrothyroxine) to euthyroid patients with one or more of the following conditions is contraindicated

1 Known organic heart disease including angina pectoris, history of myocardial infarction, cardiac arrhythmia or tachycardia either active or in patients with demonstrated propensity for arrhythmias rheumatic heart disease history of congestive heart failure and decompensated or borderline compensated cardiac status
2 Hypertensive states (other than mild labile systolic hypertension)
3 Advanced liver or kidney disease
4 Pregnancy
5 Nursing mothers
6 History of iodism

Warnings
CHOLOXIN (sodium dextrothyroxine) may potentiate the effects of anticoagulants on prothrombin time. Reductions of anticoagulant dosage by as much as 30% have been required in some patients. Consequently, the dosage of anticoagulants should be reduced by one-third upon initiation of CHOLOXIN (sodium dextrothyroxine) therapy and the dosage subsequently readjusted on the basis of prothrombin time. The prothrombin time of patients receiving anticoagulant therapy concomitantly with CHOLOXIN (sodium dextrothyroxine) therapy should be observed as frequently as necessary, but at least weekly, during the first few weeks of treatment

In the surgical patient it is wise to consider withdrawal of the drug two weeks prior to surgery if the use of anticoagulants during surgery is contemplated

When CHOLOXIN (sodium dextrothyroxine) is used as thyroid replacement therapy in hypothyroid patients with concomitant coronary artery disease (especially those with a history of angina pectoris or myocardial infarction) or other cardiac disease treatment should be initiated with care Special consideration of the dosage schedule of CHOLOXIN (sodium dextrothyroxine) is required This drug may increase the oxygen requirements of the myocardium especially at high dosage levels Treated subjects with coronary artery disease must be seen at frequent intervals If aggravation of angina or increased myocardial ischemia cardiac failure or clinically significant arrhythmia develops during the treatment of hypothyroid patients the dosage should be reduced or the drug discontinued

Special consideration must be given to the dosage of other thyroid medications used concomitantly with CHOLOXIN (sodium dextrothyroxine) As with all thyroactive drugs hypothyroid patients are more sensitive to a given dose of CHOLOXIN (sodium dextrothyroxine) than euthyroid patients

Epinephrine injection in patients with coronary artery disease may precipitate an episode of coronary insufficiency This condition may be enhanced in patients receiving thyroid analogues These phenomena should be kept in mind when catecholamine injections are required in sodium dextrothyroxine-treated patients with coronary artery disease

Since the possibility of precipitating cardiac arrhythmias during surgery may be greater in patients treated with thyroid hormones it may be wise to discontinue CHOLOXIN (sodium dextrothyroxine) in euthyroid patients at least two weeks prior to an elective operation During emergency surgery in euthyroid patients and in surgery in hypothyroid patients in whom it may not be advisable or possible to withdraw therapy, the patients should be carefully observed

There are reports that sodium dextrothyroxine in diabetic patients is capable of increasing blood sugar levels with a resultant increase in requirements of insulin or oral hypoglycemic agents Special attention should be paid to parameters necessary for good control of the diabetic state in dextrothyroxine-treated subjects and to dosage requirements of insulin or other antidiabetic drugs If sodium dextrothyroxine is later withdrawn from patients who required an increase of insulin (or oral hypoglycemic agents) dosage during its administration the dosage of antidiabetic drugs should be reduced and adjusted to maintain good control of the diabetic state

When either or both impaired liver or kidney function are present the advantages of CHOLOXIN (sodium dextrothyroxine) therapy must be weighed against the possibility of deleterious results

Usage in Women of Childbearing Age
Women of childbearing age with familial hypercholesterolemia or hyperlipemia should not be deprived of the use of this drug it can be given to those patients exercising strict birth control procedures Since pregnancy may occur despite the use of birth control procedures administration of CHOLOXIN (sodium dextrothyroxine) to women of this age group should be undertaken only after weighing the possible risk to the fetus against the possible benefits to the mother Teratogenic studies in two animal species have resulted in no abnormalities in the offspring

Precautions
It is expected that patients on dextrothyroxine therapy will show greatly increased serum protein-bound-iodine levels These increased serum PBI values are evidence of absorption and transport of the drug and should NOT be interpreted as evidence of hypermetabolism similarly they may not be used for titrating the effective dose of CHOLOXIN (sodium dextrothyroxine) PBI values in the range of 10 to 25 mcg% in treated patients are common

If signs or symptoms of iodism develop during CHOLOXIN (sodium dextrothyroxine) therapy the drug should be discontinued

A few children with familial hypercholesterolemia have been treated with CHOLOXIN (sodium dextrothyroxine) for periods of one year or longer with no adverse effects on growth However it is recommended that the drug be continued in patients in this age group only if a significant serum cholesterol-lowering effect is observed

Adverse Reactions
The side effects attributed to dextrothyroxine therapy are for the most part due to increased metabolism and may be minimized by following the recommended dosage schedule Adverse effects are least commonly seen in euthyroid patients with no signs or symptoms of organic heart disease the incidence of adverse effects is increased in hypothyroid patients and is highest in those patients with organic heart disease superimposed on the hypothyroid state

In the absence of known organic heart disease some cardiac changes may be precipitated during sodium dextrothyroxine therapy In addition to angina pectoris arrhythmia consisting of extrasystoles ectopic beats or supraventricular tachycardia ECG evidence of ischemic myocardial changes and increase in heart size have been observed Myocardial infarctions both fatal and non-fatal have occurred but these are not unexpected in untreated patients in the age groups studied It is not known whether any of these infarcts were drug related

Changes in clinical status that may be related to the metabolic action of the drug include the development of insomnia nervousness palpitations tremors loss of weight lid lag sweating flushing hyperthermia hair loss diuresis and menstrual irregularities Gastrointestinal complaints during therapy have included dyspepsia nausea and vomiting constipation diarrhea and decrease in appetite

Other side effects reported to be associated with CHOLOXIN (sodium dextrothyroxine) therapy include the development of headache, changes in libido (increase or decrease), hoarseness tinnitus dizziness peripheral edema malaise tiredness visual disturbances, psychic changes, paresthesia muscle pain and various bizarre subjective complaints Skin rashes, including a few which appeared to be due to iodism, and itching have been attributed to dextrothyroxine by some investigators Gallstones have been discovered in occasional dextrothyroxine-treated patients and cholestatic jaundice has occurred in one patient although its relationship to CHOLOXIN (sodium dextrothyroxine) therapy was not established

In several instances the previously existing conditions of the patient appeared to continue or progress during the administration of CHOLOXIN (sodium dextrothyroxine), a worsening of peripheral vascular disease sensorium exophthalmos and retinopathy have been reported

CHOLOXIN (sodium dextrothyroxine) potentiates the effects of anticoagulants such as warfarin or Dicumarol on prothrombin time, thus indicating a decrease in the dosage requirements of the anticoagulants On the other hand dosage requirements of antidiabetic drugs have been reported to be increased during dextrothyroxine therapy (see WARNINGS section)

Dosage and Administration
For **adult** euthyroid hypercholesterolemic patients the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is 4 to 8 mg per day The initial daily dose should be 1 to 2 mg to be increased in 1 to 2 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily if that dosage level is indicated to effect the desired lowering of serum cholesterol

When used as partial or complete substitution therapy for levothyroxine in hypothyroid patients with cardiac disease who cannot tolerate other types of thyroid medication, the initial daily dose should be 1 mg to be increased in 1 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily preferably the lower dosage The maximum in patients receiving digitalis therapy is 4 mg

For **pediatric** hypercholesterolemic patients the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is approximately 0 1 mg (100 mcg) per kilogram The initial daily dosage should be approximately 0 05 mg (50 mcg) per kilogram to be increased in up to 0 05 mg (50 mcg) per kilogram increments at monthly intervals The recommended maximal dose is 4 mg daily if that dosage is indicated to effect the desired lowering of serum cholesterol

If new signs or symptoms of cardiac disease develop during the treatment period the drug should be withdrawn

How Supplied
CHOLOXIN (sodium dextrothyroxine) is supplied in prescription packages of scored 1 2 4 and 6 mg tablets

March 1975

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Delay in the Prehospital Phase of Acute Myocardial Infarction — R. F. Gillium et al (M. Feinleib, National Lung and Heart Institute, Bethesda, MD 20014) Arch Intern Med 136:649-654 (June) 1976.

Prehospital delay is considered to be an important cause of out-of-hospital coronary mortality. Behavior of patients and physicians in response to the symptoms of myocardial infarction (MI) or impending out-of-hospital death (OHD) was studied for 107 consecutive accute coronary events. Delay due to inappropriate patient behavior was the most important conponent of total delay. Delay related to patient-physician contact occurred in two thirds of MI cases and was more than 30 minutes in half of these. Office visits and inappropriate triage by nurses and receptionists were important factors in physician delay. However, 60% to 75% of OHDs occur so rapidly that their prevention by reduction of prehospital delay seems impossible. A strategy for reduction of delay that might be of benefit in preventing some of the remaining OHDs is described.

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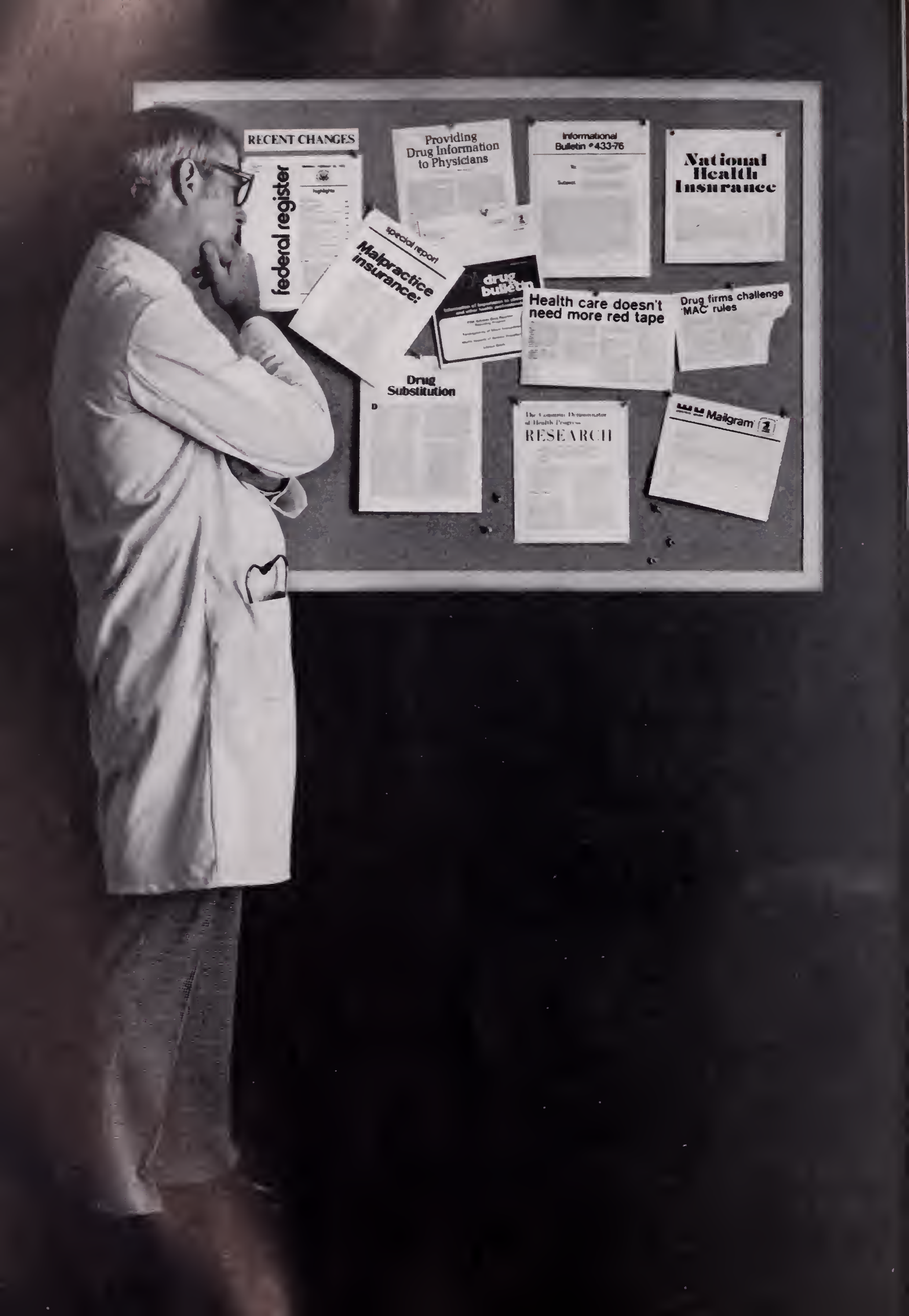
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THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent, generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than $1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.

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Long-Term Survival of Elderly Patients After Pacemaker Implantation — S. Amikam et al (Rambam Government Hosp, Haifa, Israel) Am Heart J 91:455-449 (April) 1976.

The follow-up of 80 patients above the age of 70 years with implanted pacemakers is described. These patients were the most advanced in age from a total group of 150 with implanted pacemakers. Their ages ranged from 70 to 87 years with an average age of 75.4 years; 50 were male and 30 were female. An epicardial electrode was implanted in 13 patients and an endocardial electrode in 67. The pacemaker was implanted in 76 patients for symptomatic atrioventricular block and in four patients for sick-sinus syndrome. Two patients (2.5%) died during the postoperative period and 19 patients within a period of three months to six years after implantation. The survival rates were: one year, 90.0%; two years, 82.1%; three years, 74.1%; four years, 67.2%; five years, 58.3%. These survival rates in the most advanced age groups decreased in comparison only in the fourth and fifth years after implantation. There was no evidence of new episodes of myocardial infarction among this group of patients during the follow-up period. Even in patients of the most advanced age groups, the implantation of an endocardial pacemaker substantially prolongs life, improves its quality, and has a low operative risk.

Fetal Complications of Obstetric Cholestasis — R. Reid et al (Royal Prince Alfred Hosp, Camperdown, Australia) Br Med J 1:870-872 (April 10) 1976.

Among 56 pregnancies complicated by obstetric cholestasis, five intrauterine and one neonatal deaths occurred between 33 and 39 weeks, and a further six infants required urgent delivery for intrapartum asphyxia. There were 18 spontaneous premature deliveries. Five mothers required specific treatment for unexplained postpartum hemorrhage. This evidence challenges the traditional belief that obstetric cholestasis is a condition benign to the fetus, and suggests that it may also contribute to increased maternal morbidity.

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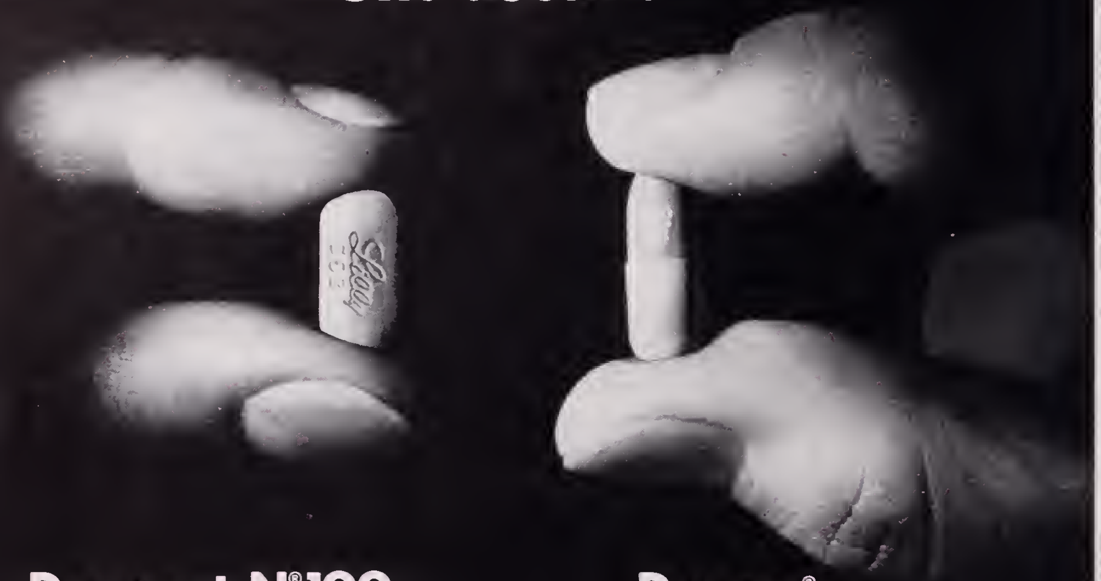

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THE NEBRASKA MEDICAL JOURNAL

THE ART OF MEDICINE

An art, not a science, is hackneyed enough to have once had some now-lost meaning, and it is just this. Something like 80 percent of unoperated patients with appendicitis may recover. But if that sounds good, you have only to think of the 20 percent mortality rate that goes with not operating, and that sounds bad. We don't know which will recover, we don't know who will live and who will die without surgery. And if you operate, one in a hundred may die, but it is possible that the one in a hundred would have been one of the 80 who would have lived without appendectomy.

The statisticians have it made, they have a good thing going, with their precise tables. But they, too, know only how many will die in any year, but they cannot tell you which ones will die.

We are as scientific as we can be, and we become more so every year, but this small element of inexactness is always with us. We close in, but it eludes us; it gets smaller and smaller, but it is there.

And so we look at the patient and we listen to him, and we resort to the laboratory, and we read, and we decide. And the deciding is always ours, even as we let the patient tell us what to do, it is we who have chosen, bluntly or circuitously.

And what of informed consent? Do we not somehow impose our final judgments on our patients, and with good conscience? For we cannot know fully, not to a hundred percent. We can know the odds, and tell our patients what is best, and what we would do if we were the patient. And that is an art, and it is a science.

—F.C.

THE GOVERNMENT AND THE DOCTOR

The public has frowned on advertising by physicians; it was undignified, we were not to guarantee cures, and commercialism smacked of quackery. We were to sterilize our profession, and we were to assume a mantle of honor and dignity. But now the government says we must let doctors advertise. They have told all of us who work for a living that we were not to bring prices up, and on other occasions, that prices were not to be brought down, to stifle competition.

Give us a fee schedule, the powers said. We did, for private practice, and for Blue Shield. We did, again, for welfare (and was this not the government?), where we reduced our fees, so that part of the charity was contributed by us. But does the government now say we may not use a fee schedule?, we would then be acting in concert, and we would be eliminating competition, and competition is to be encouraged.

Government is necessary, a little government is good, a lot of it is undesirable, and bureaucracy and a hierarchy of authority result in illogical and unbearable pressure.

Advertise, says the government (which I take to be the voice of the people), we have changed our mind. Do away with the fee schedules we once encouraged; we have changed our mind. Compete, and let the patient have his emphysema treated or his appendix removed at the lowest price, even cut-rate, and there may even be appendectomy sales. We wanted fee scheduled because they keep fees down; now we don't want them because they keep fees up.

What we cannot let you have is dignity, and consistency, and autonomy.

—F.C.

BOOKENDS

Bookends are like gloves, and unlike coathangers. Where hangers multiply like rabbits, bookends vanish like gloves and leave a single one of a pair here, and one there. They are like stockings, of which I have more unmatched pairs than I need. And when I am driven by necessity to wearing nearly but not quite matching socks, I am always sure to wear a loud tie, of which I have many, so nobody will look at my ankles.

The books on the far edge of my desk are arranged in a sort of half ellipse. Books are stubborn things. If you pull out one to the left of Gray's Anatomy, Gray will fall to the left, into the empty space, and if you take out, instead, the book on the right side of Gray, the Anatomy will fall to its right, again to fill the void you have made, as though it was ready to fall either way, and waiting to trap you.

Distributed invisibly throughout my ellipse-lined books, I have interspersed some ten simple, library-style bookends, and when I began, they were evenly spaced. But as months go by, my bookends have gravitated (that isn't quite the right word) toward each other. They tend to approach one another until in three or four places a single book is surrounded by two of these metal devils. My only explanation is that they do their moving at night, when I am away, and then wait gleefully for daylight and for me.

My next bit of research will be aimed at discovering which books become bracketed by the nightly stirring of the bookends, because the moving seems to be purposeful, and it is almost surely directed to singling out a very particular group of books.

I think I will then have an unusual collection of books chosen neither at random nor by me. It is an eerie ouija-like thought, maybe my books are telling me something. Maybe it's my bookends.

—F.C.

NOT OUT OF HIS OWN MOUTH

An automobile driver may be asked by the police to offer a sample of his breath or of his urine in evidence, to be analyzed for alcohol content. He may also be asked to try to walk on a straight line. In any case, it may be looked on as an attempt to make him convict himself, and it is my interpretation of law that it is not proper to convict a man out of his own mouth.

A physician is sometimes asked to draw blood from a patient for the same purpose, and I wonder at the propriety of the request and at the wisdom of a doctor's complying. If the patient is awake and alert, does the physician explain what he is doing? If the patient is unconscious, are we to draw his blood for this purpose?

If blood is drawn and sent to the laboratory for routine testing, may alcohol determination be included without the patient's consent? I remember seeing a surgeon draw blood for alcohol, at a police officer's request; and when I asked, my God, what are you doing? he said I'll tell him it was for glucose; and I was shocked.

We do not explain: this is for blood calcium, this is for glucose and urea; but alcohol is different. We are bemused when we think, the laboratory will do what is proper, or when we say to ourselves, blood alcohol is a medical thing, too, and I may need to know the alcohol level, as I want to see the whole picture.

Are we correct in refusing to draw blood for alcohol when the policeman wants it, and when the patient has not consented? It seems so, but could not the doctor suffer legal injury by drawing blood to convict a man out of his own mouth? I have never drawn blood in this way, and I would not, and I wonder if it is being done, and why.

—F.C.

SURGICAL INSTRUMENTS

Our friends the orthopedic surgeons used to be child-straighteners; that's what orthopedics means. They have instead become carpenters of a sort, and they have taken over just about all of his tools.

They cannot work now without the carpenter's hammer, which they call a mallet; his nails, that they nail hips with; the wrench; screws, which they use in all their bone operations; and the screwdriver, too.

Where they once pointed with pride to their tight H-shaped spinal fusion bone grafts, they have now gone over to grinders for chopping up bone as loosely as you want, and they have turned to the chisel for bone grafts and to a bone-cutter they call a rongeur.

There is a hand saw they use in amputations, and another back-and-forth saw that they have seized on for all sorts of things, like cast-cutting.

What is left? They use the drill, of course, and a reamer, and I have said this for years.

They would use an axe if they had room to swing it.

—F.C.

Propranolol in Antihypertensive Therapy*

H. FREDERICK DALSKE, Ph.D.

and

GERALD L. WOLF, M.D., Ph.D.

ALTHOUGH beta-blocking drugs have been widely used in the treatment of hypertension in other countries for over a decade, propranolol is officially approved for use in the United States only for arrhythmias, idiopathic hypertrophic subaortic stenosis, pheochromocytoma, and angina. Propranolol's exact mode of action as an antihypertensive is still unclear, but, as with most of the other drugs discussed in this series, it is probably multifaceted.

Propranolol was originally thought to lower blood pressure by a cardiac action manifested as a reduction in heart rate and cardiac output. Later reports revealed no significant correlation between propranolol-induced pressure responses and the reduction in either heart rate or cardiac output. However, a significant relationship was found between the effect on blood pressure and the reduction in total peripheral resistance, strongly suggesting a vascular component to propranolol's hypotensive action.

More recently it has been shown that the effectiveness of propranolol in lowering blood pressure closely correlates with the pre-existing plasma renin activity and with the degree of renin suppression produced by the drug. Although the effect on renin secretion may be mediated by several mechanisms, including neural, humoral and hemodynamic factors, one major result is a fall in the elevated total peripheral resistance in patients with increased plasma renin activity.

Still other mechanisms have been postulated to explain propranolol's antihypertensive actions. Propranolol does not cause plasma volume expansion and actually decreases it in about half of the patients. Since propranolol crosses the blood-brain barrier, a central action has also been postulated.

Propranolol is a relatively safe drug, when used with certain precautions. Because it is not cardioselective in its actions, propranolol also inhibits beta receptors in bronchial smooth muscle and is contraindicated in patients with a history of asthma or chronic obstructive lung disease. The negative inotropic and chronotropic effects of propranolol contraindicate its use in conditions where bradycardia, AV conduction defects, or congestive heart failure already exist. However, the fear that propranolol might induce heart failure in hypertensive patients may be exaggerated, since the lowered blood pressure and reduction in cardiac work may outweigh the drug's negative effects on contractility. Serious adverse reactions are more frequent in elderly patients, when azotemia is present, and after parenteral use. Other side effects are minor and include occasional nausea, diarrhea and fatigue. Propranolol does not produce postural hypotension and causes no interference with male sexual function.

Propranolol is of most value when used in hypertensive conditions related to elevated cardiac output or high peripheral renin activity. It may be used as the sole agent or in combination therapy. Hydralazine is particularly well-suited for use with propranolol, since the reflex cardiac stimulation elicited by the vasodilator is well-balanced by propranolol's moderate myocardial depressant actions. Each of these two drugs potentiates the antihypertensive effect of the other. A diuretic is often added to this regimen to avoid sodium retention. The use of propranolol with any sympatholytic agent, most especially guanethidine, may lead to serious cardiac decompensation by a dual deprivation of the heart rate from catecholamine support. However, judicious use of propranolol with these agents has afforded good blood pressure control in some patients without serious adverse effects.

Propranolol therapy is sometimes difficult to manage. First, the effective dose varies widely — from 40 mg to more than 1 gm daily. Second, the hypotensive effect may take as much as four weeks to become evident. Third, too large a dose may lower the blood pressure by precipitating heart failure. The most useful way to decide whether to increase the dose, decrease the dose, or manipulate another drug is to test for reflex increases in pulse rate with a postural challenge. If the pulse rate increases when the patient stands, some beta sympathetic receptors are not completely blocked and an increase in propranolol may be indicated. If no postural heart rate increase occurs, then further increases in propranolol may risk congestive heart failure. However, it should be noted that even this technique is not uniformly successful in performing dose titration.

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Our prescription survey revealed a marked tendency to underdose with propranolol. The median effective dose for blood pressure control is 320 mg/day preferably administered in four divided doses. The antiangial dose range is lower as graphically shown in Figure 1. In titrating with propranolol, it is recommended that the initial dose of 40 mg daily be serially doubled every two weeks until control is achieved or adverse side effects intervene. Additional hypotensive effect must then be achieved with another drug, e.g. by adding or increasing hydralazine.

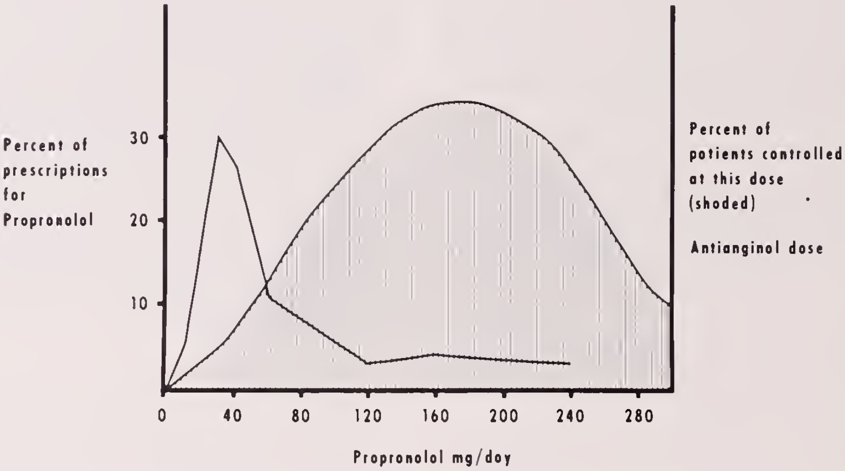

Figure 1. Comparison of propranolol dose prescribed with the expected range of optimal antianginal dose. The prescription survey could not distinguish between therapy prescribed for arrhythmia, angina or hypertension. However, the actual doses prescribed (unshaded) appear to be too low for any of these indications.

Behavior Therapy for Obesity: Another Fad or a New Set of Facts?

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PART IV

Summary of Research Findings and a Caution

Earlier it was stated that in this area plagued with scores of treatment fads and disappointing treatment facts, behavioral approaches to the treatment of obesity bring relief in the form of a new set of facts. The breadth and, in the case of our own treatment study, depth of these facts is evident in the survey of research just presented. Summarizing, the behavioral treatment approach can produce significant and lasting weight losses when treatment is presented in a clear, systematic manner and emphasizes the role of the environment in eating processes and the importance of eating reduced amounts of all preferred foods.

Less apparent from the material presented thus far is the present hazard that behavior therapy for weight reduction could become yet another treatment *fad* in this already dangerously swollen area. All that is necessary for this to happen is for 1) a number of untrained or poorly trained people to begin offering treatments similar to or different from those described so far under the title "behavior therapy" or "behavior mod," and/or 2) the application of behavioral treatment methods to become wide scale enough (e.g., popular books or national programs) to be seen as going beyond the data. This may already be happening. To combat this, conscientious professionals in allied fields can stay abreast of developments in this area (and recommend the same to their interested patients and colleagues) and insist on the very highest of qualifications on the part of behavioral clinicians with whom they work or to whom they make referrals. For their part, behavioral psychologists, physicians and educators will continue in their efforts to establish peer review boards, standards for evaluation, certification and the like to provide for regulation and quality control in an area which is beginning to need it.

This paper was presented at The Swanson Center for nutrition symposium entitled "Nutrition and Physical Fitness—Facts and Fads," April 28, 1975, Omaha, Nebraska. Portions were also presented at the Annual Session of the Nebraska Medical Association, April 27-30, 1975, Lincoln, Nebraska.

The concept of scientist-practitioner will not be new to many professional readers who have always valued the soundness of scientific research and methodology in applied settings. Anyone who doubts the relative novelty of this position in psychiatry and clinical psychology, however, need only consider the unsubstantiated adherence to psychoanalytic viewpoints which has characterized these fields for the last 60 years.

This research was undertaken cooperatively by Lincoln University, Jefferson City, Missouri and the University of Missouri, Columbia and was funded by USDA, Cooperative State Research Service Grant No. 316-15-16 awarded to the former institution.

Of the subjects who were lost during follow-up, three became pregnant, three moved out of the state and two would not come in for the final weigh-in.

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Gentamicin Neurotoxicity: A Case Report

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SINCE the availability of the newer antibiotics, especially the aminoglycosides, many patients have been saved who otherwise would not have survived. Unfortunately, these drugs have several side effects, the most well known of which are nephrotoxicity and eighth nerve toxicity. However, another lesser known side effect of at least one of the aminoglycosides is central nervous system toxicity, including convulsions.[1] We are presenting a patient who we believe had convulsions secondary to gentamicin toxicity.

Case Report

The patient was a 73 year old white male who was admitted to a local hospital on July 1, 1974 with a 48 hour history of abdominal pain. He previously was in excellent health. A celiotomy was done, revealing a ruptured diverticulum, peritonitis, and a pelvic abscess. Blood studies done on July 2 were normal, including a BUN of 16 mg% and a creatinine of 1.2 mg%.

His postoperative course was stormy, and attempts to resuscitate him included giving several antibiotics, including clindamycin, metronidazol (Flagyl), chloramphenicol, cephalothin, and most importantly, gentamicin. This latter drug was given 80 mg every eight hours from the date of admission to August 10, 1974, a total of 41 days. On August 11, the patient's family reported that he seemed to have a decrease in hearing acuity. Inspection of the records show that the BUN began to rise around July 20; however, serum creatinine and creatinine clearance determinations were not obtained.

A second operation was performed on August 19, at which time there was a resection of the sigmoid colon and reanastomosis. Immediately after surgery his urinary output fell rapidly, and he soon became anuric. Two days later he was transferred to Bishop Clarkson Memorial Hospital in Omaha for hemodialysis. When he arrived, he was comatose, unresponsive, and clearly uremic. Serum sodium was 142 meq/L, potassium 4.8 meq/L, cloride 104 meq/L, CO_2 content 16, BUN 71 mg%, serum creatinine 13 mg%, hemoglobin 9 mg%, white blood count 14,000 with a normal differential. Temperature, blood pressure, and pulse were normal. Chest x-ray showed slight enlargement of the heart, and the EKG was normal. An external arteriovenous shunt was immediately placed, and the first of ten hemodialyses was done on the day of transfer.

The patient's mental and neurological status never improved. During the first three days of dialysis, he had many seizures, which responded well to diazepam. Lumbar puncture and brain scan were negative. Eventually he assumed a decerebrate position, and an EEG was obtained, showing bursts of suppression activity, which is a degenerate form. He had many laboratory tests, and his blood chemistries were kept normal by the frequent, technically effective dialyses. His blood count was kept up by transfusions (he had gastrointestinal bleeding initially, thought to be probably due to stress ulcer). In addition, two blood samples and one spinal fluid sample were sent for a gentamicin level assay.

The spinal fluid, after two dialyses, had a gentamicin level of 3.95 micrograms/ml. The first blood sample, after three dialyses, had a level of 13.6 mcg/ml; and the second sample, after eight dialyses, had a level of 2.4 mcg/ml. All these determinations were made by cup plate assay.

When it appeared that his mental status would not improve even though his chemistries were normal, hemodialyses were discontinued, and the patient expired on September 6, 1974, 16 days after admission.

Postmortem examination of the brain showed marked cerebral edema, congestion, perivascular rarefaction, petechiae, and degenerative changes of the nerve cell, showing both hypoxic and toxic encephalopathy. The kidneys were swollen and showed marked tubular necrosis. The abdomen was filled with cloudy brown fluid. There was acute bronchitis and bronchopneumonia of the right and left lower lobes; and finally there were stress ulcers of the gastrointestinal tract.

Discussion

The effectiveness of any antibiotic depends on its concentration in the serum. It is desirable to reach and maintain a level high enough to eliminate bacteria, but not so high that unwanted side effects overshadow the desired action of the drug. Therefore, there is a range of concentration — sometimes large and sometimes narrow — which the clinician strives to achieve when treating infections.

Gentamicin is a drug which has a narrow therapeutic range. According to Jackson and Riff,[2] it is necessary to achieve a serum concentration of at least 4 mcg/ml to eliminate a bacteremia with Pseudomonas, the organism against which gentamicin is primarily used. However, adverse reactions become evident at levels above 12 mcg/ml,[3,4] and according to one group, even as low as 10 ug/ml.[5] Ototoxicity occurs in 2% of patients on gentamicin,[4,6] and is usually found when levels are greater than 5 mcg/ml[4] Of the ototoxic patients, most have vestibular rather than hearing deficits.[6] Nephrotoxicity occurs in 2% of patients on gentamicin;[6] however, Wilfert et al report that there is as high as a 42% association with a decline in renal function as evidenced by a rise in BUN or serum creatinine, or both.[7]

In addition to the above side effects, a rare and little known reaction is that of cerebral toxicity, manifested by convulsions and encephalopathy. In fact, there have been two international symposia published on gentamicin in the last five years,[8,9] and there was no mention of this side effect in either symposium. However, both the package insert and the Physician's Desk Reference mention convulsions as a consequence of gentamicin therapy. In our search of the literature we have been able to find only one article reporting seizures in a gentamicin treated patient; occurring after two weeks of intravenous gentamicin therapy in a child. In the same paper, the authors also mention two other unpublished cases of convulsions occurring in patients on this antibiotic; however, there was no mention of serum concentrations of this drug in any of the patients.[10]

Therefore, because of possible adverse reactions, it is important that toxic levels, probably over 10 mcg/ml, not be reached. Since gentamicin is excreted almost entirely by glomerular filtration,[5] if there is renal impairment, abnormally high and possibly toxic levels may accumulate. However, the availability of gentamicin levels is not universal; and judging from the experience in our hospital, even when it is available very few doctors use it. Therefore, several articles have been published giving guidelines as to the dosage and frequency of administration of gentamicin in renal failure, based on patients' weight and serum creatinine.[5,11,12] But Winters et al[13] point out that there are pitfalls in using guidelines suggesting time intervals and various dosages in renal failure based on serum creatinine because

1) endogenous creatinine production is different in males and females,
2) production of creatinine is not a good reflection of renal function in patients with chronic renal failure,
3) there is a lag between concentration of creatinine in serum with changing renal function, and
4) the renal function of acutely ill patients is not a static condition.

In addition, in a series of patients in which the dosage of gentamicin was based on the patient's weight, toxic levels were found in 10% but inadequate levels were found in 30%.[14]

Thus, in using gentamicin in patients, one must realize that toxic levels of the antibiotic may cause renal failure which in turn may lead to higher levels, causing further renal failure and thus perpetuating a vicious cycle. We believe that this is what happened in our patient. He received 80 mg of gentamicin every eight hours for over five weeks, even though his BUN started to rise after three weeks of therapy.

It is unfortunate that serum gentamicin levels were not drawn until after three hemodialyses, when the level was 13.6 mcg/ml, but we suspect that the original concentration was indeed much higher. This is true because gentamicin can be removed by hemodialysis, to the extent that effective dialysis can lower the blood level by 50%.[14] If this fractional excretion was obtained during the three dialyses done prior to measuring the gentamicin level in our patient, then the original concentration would have exceeded 100 mcg/ml. The apparent fractional excretion per dialysis between the two blood samples in our patient was 68%, and even using this figure (which probably underestimates the fractional excretion for the earlier dialyses, when the absolute serum levels were higher) one may estimate that the pre-dialysis gentamicin concentration exceeded 40 mcg/ml. Spinal fluid concentrations of gentamicin have been reported to range between 1/16 and 1/2 of serum levels.[14] Since, in our patient, the spinal fluid concentration was 4 mg/ml after two dialyses, at which time his blood level was probably 20-27 mcg/ml, the ratio of blood to spinal fluid concentration may be estimated to be 5-6 to 1. Thus the initial CSF level surely must have exeeded 8 mcg/ml, and could have been as much as twice this value, depending on which combination of values is chosen for the calculation. Even though repeated (daily, for a period of time) hemodialyses succeeded in reducing the gentamicin levels, finally even below the therapeutic range, the long earlier exposure to very toxic concentrations in both blood and cerebral spinal fluid seem entirely adequate to explain the nephrotoxicity and central nervous system toxicity in this patient.

It should be noted that the assays we obtained were cup plate antibiotic assays. Beta lactamase and chloroform were used to destroy respectively the cephalothin and clindamicin, the two other antibiotics used extensively in our patient. The controls indicated that all the cephalothin and clindamicin were destroyed.

Because of the effectiveness of gentamicin in potentially lethal infections, its use has become very widespread. However, its adverse reactions are sometimes forgotten. In one review of 100 patients on gentamicin, records from 23 of these cases showed lack of adequate monitoring, suggesting that clinicians were unaware of the potential renal toxicity.[7] And even when doctors are aware of possible toxicity, as stated above, there are many pitfalls in using suggested guidelines for doses and frequency of administration. Therefore we agree with Winters et al when they state that the actual monitoring of serum levels of gentamicin is the most reliable method of guiding therapy, by assuring adequate therapeutic levels but avoiding toxic concentrations.[13] We believe that assays should be made as available as a routine culture and sensitivity test, in order to reach and maintain good therapeutic levels.

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Are the "Fatties" Merely Gluttons? Some Biochemical-physiological Aspects of Normal Obesity*

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IS the "normally" fat person merely a glutton or is he the victim of some undefined metabolic disturbance which makes it extremely difficult for him to stay thin?

Each of these viewpoints has been held dogmatically by many persons ever since obesity became a national medical problem. To a certain extent the glutton theory is held by those who are thin (and thus can afford a holier-than-thou attitude) and the metabolic theory by those who are obese (and want a good excuse). Seldom have the opposing viewpoints been compromised.

Recent biochemical and physiological developments in the fields of nutrition and lipid metabolism have raised the possibility that some cases of obesity may actually be the result of slight biochemical or physiological disturbances. It is the purpose of this article to point out several areas where this may occur. Hopefully this may help those concerned with the problem of obesity to more fully accept the idea that some persons indeed may have metabolic disorders which urge them to overeat and thus become fat.

Basic to all problems of obesity is the food (energy)-balance principle. This principle states that all food eaten and absorbed must be accounted for either as body structure, energy, or fat. Since in the healthy adult the amount of food needed for body structure is largely limited to repair mechanisms, since the food needed for energy is fixed by the person's life style, and since very little good food is lost in urine and feces, only a certain finite amount of food is needed by an individual person each day. If this amount is exceeded the excess must and will be stored as fat. This report will concern itself with biochemical-physiological reasons for excess intake.

One reason for excess intake may be inadequate physiological control of hunger and satiety. The average person often does not realize that physiological mechanisms do exist which control the amount of food he ingests. When one considers, however, how hungry he can feel before a meal and how quickly he can become satiated even though much good food remains, it should become apparent to him that something beyond his own will is affecting his eating pattern. When one realizes also that in the course of a year he may eat a half ton or more of food and yet maintain his weight within a relatively few pounds, it should be evident that whatever the controls on food intake are, they must be very finely tuned.

In general, the control mechanisms on food intake which have been studied can be classified as cerebral and noncerebral in nature. In the former category are the several centers in the brain which influence food intake. The most thoroughly studied of these are the lateral hypothalamic region and the ventromedial hypothalamic region. Stimulation of the lateral center in rats causes initiation of feeding and stimulation of the ventromedial area causes cessation of feeding. Destruction of these centers cause the opposite effects — that is, cessation of feeding and overfeeding respectively.[1] Noncerebral control factors include the rate of blood glucose utilization (glucostatic theory), the serum levels of certain amino acids, the amount of adipose tissue (lipostatic theory), bulk in the stomach, gastrointestinal hormones, caloric content of food eaten, the specific dynamic action of the ingested food, and body temperature.[1-4] Each of these items can be shown to exert some, although not complete, control on food intake under experimental conditions. It is possible that all these factors and perhaps others work together through the cerebral centers to give an integrated, coordinated effect which becomes the individual's eating pattern.

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*By "normal obesity" is meant the usual ten-plus pounds overweight of "normal persons." Pathological obesity is not considered although much of what is discussed could apply to these cases also.

Considering all these controls, it is not difficult to imagine that one person may vary slightly from another in the way he responds to them and therefore in the way his food intake pattern is set. If it should be set slightly high, that person might take in a few calories more than his metabolism needs with resulting tendency towards obesity. These changes in regulation of food intake would not have to be very large to have a relatively dramatic effect when extended over many years. For example, it can be calculated that the ingestion of one doughnut per day above caloric needs for 30 years would be equivalent to 400 lbs. of fat. An example of disturbed food intake regulation is often seen in the older person. As a person ages, his life style changes, usually with the expenditure of less energy as work or exercise. If food intake controls do not change proportionally — and they often do not — this person will become overweight.

A second factor giving rise to excess food intake could be variation in the metabolic activity of adipose tissue cells (adipocytes). These are the "fat cells," cells which are especially adapted for storing triglycerides. It is becoming increasingly evident that the adipocyte is not a place for dead storage of triglycerides as was once believed. Rather its triglyceride content is constantly being used and renewed and each of these processes is under its own set of biochemical controls.

In its simplest form the normal deposition and mobilization of triglyceride is as described below. Glucose enters the adipocyte under the stimulus of insulin, and through its metabolism supplies all the components necessary for triglyceride formation — fatty acids, sn-glycerol 3-phosphate, and energy. This triglyceride is stored as fat. Alternatively, fatty acids are released from lipoproteins in the blood by an enzyme called lipoprotein lipase which is present in the walls at the capillaries, enter the adipocyte and also are converted to, and stored as, triglycerides.

The stored triglycerides in adipocytes are reconverted to fatty acids and glycerol by a lipase present in the cells. This lipase is activated by a variety of hormones, especially epinephrine and glucagon and is therefore called hormone-sensitive lipase. The fatty acids and glycerol resulting from hydrolysis enter the blood stream and are transported to various tissues such as the heart where they are metabolized with release of energy.[5]

Intertwined with these basic mechanisms are other effects from the same or different hormones. Thus, certain of the prostaglandins such as PGE_1 may enhance the lipolysis of triglyceride or reduce it, depending upon conditions.[6] Epinephrine not only triggers the activation of hormone-sensitive lipase but also raises the blood sugar level which in turn may counteract in part the fatty acid releasing effects of the epinephrine. The adrenal steroids, thyrotropin and ACTH, enhance mobilization of lipid from adipose tissue. Insulin, in addition to promoting the entrance of glucose into the adipose tissue cell, inhibits the release of fatty acids from the adipocyte. When insulin levels are elevated, therefore, lipid deposition is enhanced. On the other hand, when insulin levels are low, the entrance of carbohydrate into the cell is impaired, and the brake on lipolysis is removed with resultant increased release of fatty acids into the blood and reduction of fat stores.

As in the case of control of food intake, small variations in any one of these metabolic pathways could lead to greater or lesser storage of triglyceride in adipose tissue resulting in a greater or lesser degree of obesity. The effects of variations in levels of insulin has been discussed. Excess lipoprotein lipase conceivably could enhance storage of lipid. Insensitivity of the hormone-sensitive lipase system to epinephrine would reduce mobilization of fatty acids, and variations in the quantities of prostaglandins might change the ratio of lipid held to lipid released.

Finally, an important concept which has

arisen during the past few years is that the number of adipocytes may determine the amount of fat stored in an individual and that the number of cells is determined at a young age.[7] According to the theory in its simplest form, excess nutrition in pregnant women during the last months of gestation, in infants, or in adolescent children causes formation of a greater than normal number of adipocytes. As the person grows older the production of new adipose tissue cells ceases, but the original cells do not disappear. Instead, these cells remain throughout life with a strong propensity to fill with lipid. And the more they are filled, the more obese the person becomes. In addition, some of the cells of the obese persons are larger than others. Not only are there more to fill, therefore, but many cells can hold more fat than normal cells.

The reasons why adipose tissue cells tend to store as much triglyceride as possible are not known. Such action is not inherent in the biochemical mechanisms for deposition or mobilization of lipid discussed above. They could be related to signals emanating from fat cells themselves. Considering the importance of stored lipid as an energy reserve, it would seem logical that the body would monitor these stores carefully and tend to build them up whenever possible. Under primitive conditions, where man has lived and does live in a state of feast or famine, the triglyceride stored at one time is used at another and the individual remains relatively lean. In a condition of unlimited food supply such as exists in much of our country today, however, the filling of the fat cells is not counterbalanced by loss due to natural fasting, and obesity results.

The three concepts in regard to obesity discussed here do not as yet provide means for easy control or reversal of obesity. There is insufficient knowledge about receptors, cell regeneration, interrelation of metabolic pathways and biochemical control mechanisms for this. Considerations such as these do, however, provide theories to be examined and ideas to be investigated. It can be hoped that, as time goes on, research effort along these lines will indeed provide the means for better and easier control of obesity.

The subjects discussed here also are not meant to represent all the factors that are involved in obesity. Certainly there are others that are of importance. These three factors, however, do indicate that a tendency toward obesity can be biochemical-physiological in origin. Acceptance of this possibility by those who must deal with the problem may lead to greater tolerance toward the patient, and the latter in turn may find some comfort in the fact that it may not be all his own fault.

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Outpatient Initiation of Insulin Treatment In the Juvenile Diabetic

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FOR the new diabetic child, whose diabetes is discovered with only glucosuria, hyperglycemia, and possibly mild ketonuria, the necessity for hospitalization may be questioned. There is no question as to the necessity of at least a few days hospitalization in the presence of severe diabetic acidosis.

Arguments for hospitalization of the nonacidotic new diabetic child include opportunity to indoctrinate the parents and child into the diabetic routine, and to have the child under professional observation during the two relatively critical periods of early management. These periods are the initial one in which severe acidosis might supervene rapidly before insulin therapy is well under way, and the later period of rapid decrease of insulin requirement occurring within a week or two after insulin balance has been first achieved. At this period, insulin dosage needs to be lowered rapidly to avoid hypoglycemia.

Arguments against hospitalization are the expense, and the fact that training of the family to do the urine tests and give the insulin and diet can be done just as well (if not quite as conveniently) on an outpatient basis. With the "exchange" system for prescribing foods, the dietary instruction is relatively simple, and the average family has no trouble learning to measure out the designated number of exchanges of the various food groups for each meal and snack. Leaflets and booklets listing the quantities of foods in exchanges, in household measures, are available.*

Since acidosis can develop rapidly in presence of complicating factors, close contact should be maintained with the family of a diabetic child whose treatment is started without hospitalization. In the present program, the child is usually seen again in a day or two, then later at increasing intervals. The teaching is reinforced each time, usually with some help from a dietition. It is not wise to delay the start of insulin treatment, even until the following morning for the purpose of getting a glucose tolerance test. (A glucose tolerance test is useless, and actually contraindicated, in presence of a markedly elevated blood sugar). Usually, when any insulin is started, events leading to acidosis start to be reversed. Daily increases of the insulin dose are made at home according to rules; and gradually, in the course of a few days bring the insulin dose up to the needed level. Provision for sufficiently large decreases (as much as 20% per day) of the insulin dosage, in the week or two after achievement of initial control, at the time of the usual rapid fall of insulin requirement, is extremely important.

The system utilized by the writer for change of insulin dosage by the family at home, involves a set of rules for increasing and decreasing the daily insulin according to the urine tests (Table 2). Forms are provided containing the rules. (The copper reduction test colors are usually recorded in a chart with colored crayons, by the patient). With such a scheme it is most simple to use only a single daily insulin dose. It may sometimes be better, however, to provide the dosage into two parts such as ⅔ or ¾ in the morning and ⅓ or ¼ in the afternoon. This is done when Lente or NPH insulin, given in the AM in sufficient dosage to provide daytime control, fail to act overnight sufficiently to hold down the AM fasting blood and urine sugar. Patients are eager to avoid a second daily insulin injection and are usually willing to cooperate to achieve the dietary pattern which will make possible the

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*Diabetic Diet Card — for physicians
Meal Planning with Exchange Lists — booklet
American Diabetes Association, 18 East 48th St., New York, N.Y. 10017

use of a single daily insulin injection. A single AM dose of insulin seems to be satisfactory in a majority of cases if the following two conditions are fulfilled:

(1) The appropriate insulin mixture is utilized.

(2) The diet is arranged to give a relatively large intake of carbohydrate in the midafternoon.

The insulin usually consists of a 2:1 mixture of NPH and Regular, premixed in the bottle.† Use of the premixed insulins avoids inaccuracies of drawing 2 types of insulin into one syringe at the time of injection and avoids recalculation of dosage of insulin components with each change of total daily insulin dosage. The smaller child may need a 1:1 mixture of NPH and Regular; an older child a 3:1 mixture or straight NPH or Lente.

The insulin acts strongly in the late afternoon. Therefore, a midafternoon snack is made high in carbohydrate. The midafternoon snack is usually 1-3 bread exchanges varying with the size of the child. A midmorning snack is also given, usually 1 fruit exchange or 1 bread exchange. There is also a bedtime snack. As an additional factor of safety overnight, the bedtime snack is made flexible. Thus, if the bedtime urine sugar is positive, the bedtime snack may be only 1 bread exchange. If the bedtime urine sugar test is negative, the bedtime snack may be 2 bread exchanges (for Clinitest — "if blue, give 2").

Use of "second specimens" of urine for the tests is encouraged, especially for the morning test.

The first patient in whom insulin treatment was initiated on an outpatient basis was a 14 year old girl who appeared in the late afternoon. She had some injection of the pharynx, 4+ glucosuria, mild ketonuria, and blood sugar of 350 mgm%. Hospitalization was advised, but the patient and mother were strongly opposed to it. The first insulin injection, namely 10 units of Lente, was therefore given by the mother, in the office, following explanation and a simulated demonstration of measuring out the insulin and injecting it. The flexible insulin dosage scheme was then explained. The diet was charted in the exchange system and explained with help of the Meal Planning with Exchange Lists booklet. Mother and daughter were taught to do the urine tests. By the fourth day at home, the insulin dose was 30 units, after which it gradually fell to 8 units by the 19th day and was at 0 on the 26th day. An attempt was made to hold it at 0 by means of tolbutamide, but with this the insulin dose was up to 14 units by three months, and the tablet was discontinued. Eight years later the single daily insulin dose has been ranging from 32-52.

In a 9 year old boy, an initial dose of 10 units of 2:1 mixture of NPH and Regular insulin was given. The insulin dose changes were set at 4 units and later changed to 2 units. By the fourth day, the four urine tests were all negative at a dosage of 18 units. Thereafter the insulin dosage decreased so that by the sixteenth day it reached 0. With successive use of tolbutamide and DBI, the insulin dosage ranged from 0-8 units for eight months, after which it continued to rise and DBI was discontinued. At his latest visit, after four years of diabetes, his insulin dose had been ranging from 36-56 units.

A 10 year old girl was found to have glucosuria after several weeks of weight loss, polyuria, polydipsia, and polyphagia. There was only a small amount of ketonuria. Blood sugar was 325 mgm%. Instruction in insulin measurement and injection was given and the mother gave the first insulin dose, 4 units NPH, in the office. The child was then kept in the vicinity of the office for 4 hours to guard against presence of unusual insulin sensitivity. During this time the mother and child were taught to do urine tests for sugar and acetone, also to measure out the prescribed diet in exchanges (Table 1). Instruction was given to increase or decrease the insulin dose according to rules, as listed (Table 2). On the second and third days, the child received 8 and 12 units, respectively. During the time all of her urine sugar tests were 4+. On the 9th day, one of the 4 urine tests was 3+ and on the 10th day two were 3+. On these days insulin dosages were 34 units and 38 units, respectively. On the 17th day, the insulin dosage was up to 60 units and the urine sugar tests were 2+ , 4+ , 2+ , and 3+ . On the 21st day, the urine sugar tests were all negative. Insulin dose was down to 8 units. At this time the rules for decreases of insulin dose were changed to provide decreases of 2 or 4 units, depending on whether 3 or 4 of the 4 latest urine sugar tests were negative. On the 47th day the insulin dose was down to 0. On day 74, it was up to 12, 2 years later she attended camp Floyd Rogers for 2 weeks. Here her

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†Pharmacists can make such mixtures. The only equipment needed is a 30 or 50 ml syringe and needle (disposable syringes are most convenient). Nebraska Mortar and Pestle 29:13 (1966)

Table 1

Diet in Exchanges (leafy vegetables as desired)

	Breakfast	Snack	Lunch	Snack	Supper	Snack
Bread	1	1	2	2	3	1 or 2
Meat	1		2		2	1
Milk	1		1	1	1	
Fruit	1		1		1	
Veg B					1	
Fat	1		1	1	1	1

The figures are numbers of food exchanges.

Table 2

FLEXIBLE INSULIN DOSAGE CHART

RULES: Test urines 4 times a day 7* days a week (every day if not entirely well).

If 3* out of 4 tests are negative, decrease insulin 4* units.
If 4* out of 4 tests are negative, decrease insulin 8* units.
If 3* out of 4 tests are positive (2+ to 4+) increase insulin 2* units.
If 4* out of 4 tests are positive (2+ to 4+) increase insulin 4* units.

(IF INSULIN REACTION OCCURS, GIVE 2 TABLESPOONS KARO SYRUP OR GIVE GLUCAGON IMMEDIATELY AND CONTACT A DOCTOR)

DATE	INSULIN	URINE TESTS				SPECIAL NOTES
1973	NPH	Before Breakfast	Before Lunch	Before Supper	Bed Time	
Feb 9	4	4+	4+	4+	4+	Ket 1+
10	8	4+	4+	4+	4+	Ket 1+
11	12	4+	4+	4+	4+	Ket 0
22	54	3+	2+	4+	2+	Ket 0
Mar 1	60	0	0	0	0	Ket 0
16	8	0	0	2+	0	Ket 0

*The routine form used has these spaces blank for insertion of numbers appropriate to the patient.

daily insulin dose started at 130 units and decreased to 76 units NPH insulin.

A 7 year old boy was seen in the AM with 4+ urine sugar test Dextrostix of 250 or more, and "large" acetone. He was not nauseated. He was given 4 units of a mixture of NPH and Regular insulins, 2:1 mixed in the bottle. By evening his urine Acetest was negative. By the ninth day, following the rules of increases of 2 or 4 units for 3 or 4 out of 4 positive urine sugar tests, his insulin was up to 32 units. On this day the 4 urine sugar tests were negative and his insulin was reduced to 30 and the urine tests ran 2+, 4+, 2+, 2+. By day 24 the insulin was down to zero, again illustrating the "honeymoon period" which usually occurs in early treatment of the juvenile diabetic.

A 10 year old girl was seen in the afternoon with 4+ urine sugar test and no ketonuria. Destrostix indicated blood sugar of 250 mgm% or more. Four units of a 2:1 mixture of NPH and Regular insulin were given. By day 5 she received 32 units and the urine sugar tests were 0, 4+, 0, 0. The rules for insulin changes were to decrease 4 units if 3 out of 4 urine tests were negative and to decrease 8 units if 4 out of 4 were negative, therefore the next day she decreased the insulin to 28 units. On this she ran 4 negatives and so decreased next day 8 units, to 20. By the 17th day the insulin dosage was down to 2 and on day 32 it was zero. On this day, however, at 4 PM a quantitative blood sugar was 244 mgm% and the urine sugar was 4+. A year later her insulin dosage was ranging from 30 to 40 units, still regulated by the flexible insulin dosage rules.

An 11 year old girl presented with glucosuria and 1+ ketonuria. At 5 PM her blood sugar was 260 mgm%. Ten units were given of a 3:1 mixture of NPH and Regular insulins. 14 units were given at home the next day and the urine tests were 0 before lunch, 0 before supper, 4+ bedtime, 0 before breakfast. Insulin was therefore reduced to 12 units. On this she ran 4 negatives. On the fourth day she was seen in the office and her fasting urine sugar test was negative and her blood sugar was 102. A modified glucose tolerance test was done which showed blood sugar 306 at 3 hours.

A 6 year old girl was referred because of glucosuria and was seen at 5 PM. Her blood sugar was 250 or more. The father was sent to the pharmacy for a 2:1 mixture of NPH and Regular insulins. Meanwhile, the mother was taught the diet and the urine testing. When the father returned with the insulin, the mother gave the child 4 units upon instruction and demonstration by the physician. Bedtime urine showed 4+ sugar. Eight units were given the next day. 3 out of the next four urine tests were negative whereupon the next insulin dose was reduced to 4 units. On day 6, the insulin was 0, on days 6 to 10 it was 2, on day 11 the fasting urine test was negative and blood sugar was 90, on days 11 to 16 insulin dosage was 4 units, not changing since the 4 urine tests were 2 negative and 2 positive. On days 29 to 34 it was 0.

A 2 year old boy was found by the referring physician to have glucosuria. When seen two hours later the urine sugar test was negative and Dextrostix indicated a normal blood sugar level. He was brought back next morning for a glocose tolerance test and showed, initially, no urine sugar. The glucose tolerance test showed plasma glucose values of: fasting — 174 mgm%, ½ hr. — 309, 1 hr. — 369, 2 hrs. — 411, 3 hrs. — 303. He was then given 2 units of a 2:1 mixture of NPH and Regular insulins and sent home to continue daily changes of insulin dose. On the 5th day his insulin dose was 3 units and his urine sugar tests were all negative. By the 10th day the insulin was 0 and urine sugar tests were 0, 0, 1+, and 0. On day 27 insulin was 0 but urine sugar tests were 4+, 4+, 4+, 4+; next day 2 units were given and urine sugars were 0, 0, 0, 0.

Summary

Hospitalization is not always necessary for initiation of insulin treatment in the diabetic child. Outpatient management is facilitated by a flexible insulin dosage scheme to be used in the home. Particular care is necessary, in provision for the rapid decrease of insulin requirement, which occurs temporarily after initial achievement of control.

Psychiatric Aspects of Temporal Lobe Epilepsy

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TEMPORAL lobe epilepsy, also called psychomotor epilepsy, characteristically presents with rather vague, though often bizarre, symptoms suggestive of a functional psychosis, neurosis, or personality disorder. Frequently, it is initially confused with schizophrenia, depression, anxiety neurosis, hysterical personality, antisocial personality, or outright malingering. The purpose of this paper is to discuss some typical presenting psychic symptoms of psychomotor epilepsy to assist in recognizing this often masquerading illness.

In making his classic observations into epilepsy at the turn of the century, Hughlings Jackson spoke of temporal lobe epilepsy:

"I remark by way of recapitulation that he who neglects the dreamy states because they are indefinite and merely curious and such symptoms as chewing movements and apparent alterations in size and distance of external objects because they seem trifling things, may not even surmise that this patient has a serious disease, epilepsy in a rudimentary form, until a severe fit comes to tell him so."[1]

The greatest asset in making the accurate diagnosis of psychomotor epilepsy is including it in the differential. Episodic phenomena of depersonalization, derealization and automatisms of searching, swallowing, and fumbling in various pockets are highly suggestive of psychomotor seizures.

The electroencephologram (EEG) recording, especially during light sleep, may demonstrate spike and wave activity over the anterior temporal lobe, confirming the diagnosis. However, in up to 50% of all cases of epilepsy, the EEG findings are negative, and 15% of normal controls show significant abnormalities.[12] While the EEG recording is a necessary adjunct to the seizure workup, and is most useful in confirming the diagnosis, a negative tracing does not rule out the disorder.

A great deal of confusion has always existed in the literature about use of the terms psychomotor and temporal lobe epilepsy. This has come about because spike and wave activity in the temporal lobe on the EEG recording is not always associated with the clinical findings of psychomotor epilepsy. On the other hand, the clinical phenomena of psychomotor epilepsy can be found without associated EEG findings. To alleviate this confusion, Stevens has suggested that temporal lobe epilepsy be subdivided into three groups: psychomotor, to signify the clinical syndrome; temporal lobe epilepsy, to signify the EEG status of spike activity over the temporal lobe; and psychomotor-temporal lobe epilepsy, to signify that the two are concurrent.[9]

The temporal lobe, in a general sense, is responsible for the integration and expression of our memories and emotions. It is, therefore, no surprise to discover that the temporal lobe seizure generally begins with phenomena such as *deja vu*, feelings that what is actually a new experience, has happened before; *jamais vu*, feelings that what is actually a routine experience, is a new occurrence; and perceptual illusions of objects growing, shrinking, or approaching the patient.[4] Other common presenting symptoms are complex hallucinations, altered thought processes, and complex stereotyped automatisms such as disrobing, scratching, and lip smacking. The uncinate fit, an olfactory hallucination of a rotten or burning order, is observed in approximately 5% of psychomotor epilepsy cases.[7] These symptoms may be either short-term or prolonged and are frequently accompanied by changes in mood and affect. Rarely, the seizure may terminate in a major motor seizure.

To some extent, the symptoms are determined by the location of the epileptic focus. For example, if the lesion is situated in the dominant hemisphere, the patient seems predisposed to a thought disorder. However, if the epileptic focus is in the nondominant hemisphere, the patient is then predisposed to a mood disorder.[2, 3] In addition, one often observes a worsening of a schizophrenia in an epileptic (when the two problems coexist) as the seizure disorder is brought under anticonvulsant control. Conversely, if anticonvulsant medication is withdrawn, or is insufficient and the patient has seizures, his psychosis tends to resolve. The mechanism of this phenomena is unknown, though Flor-Henry suggests that the two illnesses are antithetical manifestations of the same cerebral malfunction.[2] Schizophrenia and epilepsy as two sides of the same coin is a fascinating speculation.

The following cases briefly summarized illustrate some of the common characteristics of temporal lobe epilepsy:

Case 1. A 20 year old female had several types of psychomotor seizures, some including long walks or runs, and others in which she had the illusion that her left arm and left face became grotesquely ugly. During these seizures, she was liable to murderously attack bystanders, and had plunged the blade of a scissors into the lung of a nurse who did not take a prompt interest in her statement that she felt one of her running attacks coming on. She also stabbed a woman in the heart when the lady brushed against her left arm while she was experiencing a seizure causing her to have the illusion that her left side was so ugly.[5]

Case 2. Hughlings Jackson described the seizures of a young doctor who at postmortem was found to have a small area of softening in the region of the left uncinate gyrus. During a fit, he was able to stoop over and pick up a pin, and continue with the physical examination of a patient, and write a reasonable diagnosis, all with subsequent amnesia for the events.[6]

Case 3. A young woman would undress herself, carefully hand her clothes in order, and then attempt to walk with apparent purposefulness down the street, often into the front yard of a bachelor neighbor in whom she had a conscious erotic interest.[7]

During a seizure, the patient is generally preoccupied with intrapsychic phenomena and is often completely amnesic for the entire period of time spanning the seizure. While patients may react violently toward others, if left alone they are generally not aggressive.[8] Purposeful, premeditated attacks during such seizures are extremely rare.

The issues of psychiatric abnormality and violence associated with temporal lobe epilepsy is controversial and has provoked many studies and comments in the professional and lay press.[9, 10] Ervin, in writing the chapter on epilepsy in a noted standard textbook of psychiatry, strongly emphasized the high incidence of psychiatric abnormality in temporal lobe epilepsy, while at the same time dismissing an overall epileptic personality.[7] He notes particularly poor impulse control in temporal lobe epileptics and feels there is a schizophrenic-like constellation of mobility of mood, sudden alteration of consciousness and frequent hallucinatory episodes. This group showed episodic behavior disorder, poor impulse control, and emotional and affective lability and many features of borderline hysteria. Others have observed assertiveness, querulousness and suspiciousness, and especially a peculiar adhesiveness in the intellectual, emotional, and volitional spheres.[11] However, according to Stevens, there is no increased risk of interictal psychopathology in psychomotor epilepsy.[9] We are more inclined to agree with Stevens.

The bizarre behavior and psychic phenomena of the patient with a psychomotor seizure disorder are often combined with a rather detached preoccupied affect during a seizure. Occasionally, their symptoms are mistakenly interpreted to be secondary to a schizophrenic psychosis. The diagnosis of schizophrenia is generally reserved for the primary constellation of autism, ambivalence, disordered affect, and loose thought associations. Hallucinations and delusions are considered secondary symptoms of schizophrenia, and are not necessarily per se diagnostic of the disorder. The temporal lobe epileptic, in the midst of a seizure, may seem to manifest some of these findings. Generally, however, the patient will display affect *appropriate* to the circumstances of the seizure induced phenomena. He will also display a clear preoccupation with the intra-psychic phenomena of the seizure. This is in contrast to the schizophrenic patient whose thought disorder permeates his entire personality, whose affect is inappropriate to the situation as well as to his delusions or hallucinations, if present, and who generally does not seem preoccupied to the extent of the seizuring epileptic.

Anxiety, a *sine qua non* of neurotic disorders is not a usual component of epilepsy nor of seizure activity. However, some patients seem almost to desire a seizure to "clear the air."[7] Neurotic disorders may share with psychomotor epilepsy the characteristic of an identifiable onset, and, superficially, a more or less encapsulated symptomatology. Unlike seizure activity, the neurotic symptomatology generally involves complex, well integrated behavior or thought in a particular area of the patient's personality. The symptoms are identified by the patient with a neurotic disorder as an alien aspect of his personality, and may not interfere with other aspects of circumstances or his personality. Seizure activity is generally much less systematized or compartmentalized than are neurotic symptoms.

Temporal lobe epilepsy is often confused with functional personality disorders. A personality disorder is a pattern of behavior, with its onset in the early teens, often in childhood, that may bring the patient into continual conflict with others or with social institutions, and of which the patient is generally unaware. To make the diagnosis, one must have a lifetime history of maladaptive behavior. On the other hand, psychomotor seizures or "psychic equivalents" frequently begin in adulthood and are rare in children.[9] The patient with epilepsy, in contrast to the patient with a personality disorder, is aware of seizures or episodic uncontrolled behavior, even though he may be amnesic for the time of the seizure *per se*. His problems with society and significant others generally arise from the disruptions caused by his seizures, behavior for which the patient is often unjustifiably held accountable. The subsequent efforts upon the part of a patient with epilepsy to compensate for his illness and to integrate his seizures into some sort of comprehensible context are commonly mistakenly interpreted as symptomatic of a manipulative character with poor impulse control. They should be viewed instead as a person making the best of an often desperate situation he or she does not comprehend.

To summarize: It is of paramount importance to evaluate recurrent stereotyped behavior with particular emphasis upon date of onset, precipitating event, prior state of mind, presence of psychic phenomena, illusions, changes of mood and affect, and cyclic recurrence of the symptomatic phenomena for the possibility of epilepsy When motor seizures and positive EEG recordings are present, the patient can be placed upon anticonvulsive medication, with the seizure disorder clearly documented. In cases where these two findings are absent, one must have a high index of suspicion and document recurrent, stereotyped phenomena that may be psychic or motor automatisms. These patients are not "crazy." Appropriate anticonvulsant medication or occasionally surgical intervention is often highly successful.

Psychomotor epilepsy provides a very interesting diagnostic challenge. Properly treated, the temporal lobe epileptic can look forward to a productive, fulfilling life. Where the symptoms are unrecognized, this may bring the afflicted patient into continual conflict with the mores and, perhaps, laws of his society. While overview articles cannot replace a careful clinical analysis, it is our hope that this brief discussion of temporal lobe epilepsy will be useful in distinguishing it from other psychiatric syndromes, and facilitate prompt accurate recognition and treatment of this complicated and fascinating illness.

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Diagnosis of Congenital Heart Disease in The Neonate by Non-invasive Methods*

PART I

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THE distinction between congenital heart disease and pulmonary disease in the sick neonate is often difficult. Although an exact cardiac diagnosis may not always be possible, non-invasive diagnostic methods will usually enable one to establish the presence of significant congenital heart disease.

This paper will be presented in two parts. The first will include diagnosis of congenital heart disease by physical examination, chest roentgenogram, and electrocardiogram. The second part will discuss the use of the echocardiogram in congenital heart disease.

Physical Examination

The diagnosis of congenital heart disease in the neonate is made by close observation of all members of the medical team. Color, respiratory rate and pattern, feeding problems, and heart murmurs are usually the first clues to suggest cardiac pathology.

Cyanosis may not be appreciated immediately after birth. Close observation is a prerequisite to its discovery. Acrocyanosis (cyanosis of the fingers and toes) is common and does not signify cardiac pathology. Cyanosis may be confirmed by the use of arterial blood gas determinations. Only rarely in cyanotic infants will the pO_2 values rise above 50 mm Hg even while being administered 100% oxygen. Infants with respiratory distress syndrome generally will oxygenate above 50 mm Hg in high oxygen concentration and have evidence of CO_2 retention.

Murmurs will add specificity to the diagnosis in the older child, but they are often absent in the neonate. Their absence does not exclude heart disease, but their presence in the neonate should alert the physician to the possibility of a significant heart defect.

Blood pressure determinations should be obtained in all extremities of every infant. This will exclude coarctation of the aorta as well as give an indication of general perfusion. The absence of femoral and pedal pulses in the lower extremities will give similar information.

Hepatomegaly, more than 2-3 cm below the right costal margin in the midclavicular line, is not commonly seen in congenital heart disease without congestive heart failure. Downward displacement of the diaphragm, however, which suggests hepatomegaly may be seen in the cyanotic infant with primary lung disease.

The respiratory pattern offers clues to the diagnosis of congenital heart disease. Rapid, shallow breathing with tachycardia is common in heart disease. Classically, flaring of the nostrils and grunting respirations are seen in the respiratory distress syndrome. Intercostal retraction also suggests lung disease but may also be seen in left heart failure. Central nervous system disease, such as intracranial hemorrhage, is often manifested as periodic breathing and cyanosis in neonates without heart disease. In general, infants in difficulty from a congenital heart defect will have either congestive heart failure and/or cyanosis. Heart failure will be evidenced by tachycardia, tachypnea, cardiac enlargement, and hepatomegaly.

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*University of Nebraska Department of Pediatrics, Section of Pediatric Cardiology, and the University of Nebraska Cardiovascular Center.

Roentgenogram

The plain chest roentgenogram is of major importance in the diagnosis of congenital heart disease in the neonate. Grouping of patients should be according to the pulmonary vascular markings. Every newborn can be classified by this method, and only a PA and lateral chest roentgenogram are necessary. Table I summarizes the findings.

Acyanotic heart defects such as coarctation and aortic stenosis which have normal vascular markings in older children will usually have the picture of pulmonary venous congestion in the newborn.

Electrocardiogram

The electrocardiogram is generally the least helpful of the noninvasive techniques in the newborn period, especially in the first two to three days.

Virtually all of the cyanotic lesions present at right axis deviation and right ventricular predominance. This is the same pattern as that of the normal newborn. The exception is tricuspid atresia. These patients have left axis deviation as a reflection of the absence of right sided forces.

Most of the acyanotic infants present with an electrocardiogram similar to the normal. The exception in this group is the endocardial cushion defect in which there is left axis deviation. Also critical aortic stenosis may present as left ventricular hypertrophy with inversion of the "T" waves in precordial lead V6 suggesting myocardial ischemia or strain.

Differential Diagnosis

Although heart and lung disease are most commonly confused in the neonate, other less frequently recognized entities should be considered.

1. Shock, sepsis, and hypothermia:

   Each of this triad may produce signs and symptoms suggesting cardiac pathology. Cardiovascular assessment, sepsis determination, and environmental homeostasis are necessary for diagnosis and therapy.

2. Hypoglycemia:

   Cyanosis and cardiomegaly are occasional-

TABLE I

PULMONARY VASCULARITY	ACYANOTIC	CYANOTIC
INCREASED	VENTRICULAR SEPTAL DEFECT PATENT DUCTUS ARTERIOSUS ENDOCARDIAL CUSHION DEFECT ATRIAL SEPTAL DEFECT	TRANSPOSITION OF THE GREAT VESSELS TOTAL ANOMALOUS PULMONARY VENOUS CONNECTION TRUNCUS ARTERIOSUS
NORMAL	AORTIC STENOSIS COARCTATION OF THE AORTA HYPOPLASTIC LEFT HEART PULMONARY STENOSIS	NONE
DECREASED	NONE	TETRALOGY OF FALLOT TRICUSPID ATRESIA EBSTEIN'S ANOMALY OF THE TRICUSPID VALVE

ly seen in patients with persistent low blood sugar. Both findings respond to intravenous glucose infusion. Caution must be exercised with this diagnosis as congestive heart failure secondary to congenital heart disease may co-exist with hypoglycemia.

3. Elevated hemoglobin:

   High hemoglobins, over 20 gm%, with an increase in the absolute amount of reduced hemoglobin occasionally are mistaken for cyanotic heart disease. These infants are usually more plethoric than cyanotic and respond to blood volume reduction.

4. Methemoglobinemia:

   Due to an abnormal hemoglobin secondary to hereditary or environmental causes, these infants may present as an apparent cyanotic infant. This abnormal hemoglobin has reduced oxygen carrying capacity and does not become pink in oxygen. The diagnosis can be established by simply exposing a drop of blood to O_2. In the normal neonate without this defect the blood will turn pink.

5. Drug Overdose:

   Cyanosis may rarely be caused by alveolar hypoventilation secondary to respiratory depression from analgesics in sedatives given prior to the delivery.

Down Memory Lane

1. Find out what brings on the pain.

2. Gastric and duodenal ulcer are now frequently discussed under the term of peptic ulcer, and yet, there are many points of difference in the symptomatology.

3. It is said that in treating gall-bladder infection there is a reaction from the dictum of total extirpation to conservation.

4. The trouble with the average history which is taken by a practicing physician or an intern is that it is too short and choppy.

5. The result is that when a thin little woman with a short, carnivorous bowel is made to live on spinach, bran, and vitamins, her digestion is frequently so ruined that she rapidly loses weight, bloats with gas, and develops abdominal distress.

6. Ulcers are found in individuals of all occupations but they are slightly more frequent in cooks.

7. The diet is perhaps the most important consideration of ulcer treatment.

8. We have stated that the favorable influence of ketogenic diets in epilepsy, like the favorable effect of fasting, has been attributed by investigators to the acidosis produced.

9. The Maternity and Infancy Act is for the purpose of promoting the welfare and hygience of mothers and infants.

10. A combined medical meeting and picnic of Nemaha and Richardson County Medical Societies was held at Shubert, Wednesday, July 14.

Nebraska State Medical Journal.
August, 1926

President's Page

R.V.S.
BUREAUCRACY — AN ENIGMA

As you are aware, the 1975 Relative Value Study of the Nebraska Medical Association was withdrawn from sale and further publication was stopped by action of the Policy Committee on June 17, 1976. This study had provided a means of comparing the relative value of one medical or surgical procedure with another by taking into consideration all facets of each procedure in patient care. Much time, effort, and expense was involved in producing this study, which was considered to be of great value to all parties concerned with patient welfare.

The development of the study was actually initiated by a segment of our government. Because of the marked variation in fees charged by physicians for similar procedures, the medical profession was requested to devise some type of schedule so that one procedure might be related to another in order to determine reasonable compensation. A Relative Value Study, subsequently updated and reevaluated, was the result.

A formidable document had evolved which attempted to list all medical and surgical procedures concerned with patient care. Each procedure was assigned a code number. Each procedure was also assigned a number that expressed its relative value to every other procedure.

The document proved extremely useful to governmental agencies, insurance companies, and physicians. By utilizing a dollar factor multiplied by the relative value number, the Nebraska Workman's Compensation Court established a maximum allowable fee schedule for medical and surgical procedures. In the same manner, many insurance companies utilized the Relative Value Study to arrive at a maximum allowable fee for reimbursement of the patient holding their policy. By selecting an appropriate dollar conversion factor, the physician could be assured of consistency in evaluating the procedures he utilized in his practice in determining his fee schedule.

A few years ago, the usual and customary fee concept emerged on the scene. Governmental agencies and insurance companies then began to collect data to establish a fee profile on each physician. With the use of the individual physician profile and with the ability to compare the profile of one physician with that of others, the relative value of a procedure as established in the Relative Value Study was no longer of importance to governmental agencies in their determination of a reasonable fee. But it appears the Justice Department decided that they could make use of the Relative Value Study in another manner. Since the Supreme Court of the United States recently determined that professonals are subject to the provisions of the antitrust laws, the Justice Department determined that they might attack physicians on the grounds that the use of the Relative Value Study leads to a violation of the anti-trust laws. To this end, the U.S. Department of Justice filed suit against the American Society of Anesthesiologists alleging that it and its members and component societies have conspired to raise, fix, stabilize, and maintain fees charged by its members for rendering anesthesia services. The suit also asks that the court enjoin the American Society of Anesthesiologists "from promulgating, adopting or disseminating any guides or schedules concerning fees and from making any recommendations regarding the calculating of fees charged by members."

We are all acutely aware of the rapid and progressive encroachment of the government in the practice of medicine. If such has not resulted from legislative activity, it has occurred in the form of harrassment through promulgated rules and regulations. In my opinion, the current suit filed by the Justice Department against the American Society of Anesthesiologists is another form of harrassment of the medical profession in an attempt to "conquer" organized medicine.

Harlan L. Papenfuss, M.D.
President

Welcome New Members

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5654 North 103rd Street
Omaha, Nebraska 68134

McCleery Glazier, M.D.
727 North Custer
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R. G. Heasty, M.D.
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The Auxiliary

STATE REPORT

"Health is a function of participation," has been the theme for the 1975-1976 members of the Nebraska Medical Association Auxiliary. Without the participation and dedication of the Board and members of the Auxiliary, little would have been done to promote the health-related causes that have been undertaken this year.

The enthusiastic participation of the Health Galleries Committee has produced a successful year, raising $10,000 for the seed money to promote the fund-raising endeavors of the Auxiliary. Working the the Nebraska Medical Association and with faculty members of the University of Nebraska Health Education Department, museum curators and University Foundation personnel, the Auxiliary had contracted with the Richard B. Rush Studios, from Chicago, to draw plans and build a model to be used for fund-raising purposes.

It was an exciting day, January 9, when a preview, showing the scale model, was attended by persons who had been working on the project for the past five years. Richard Rush was present to explain the concept of the Galleries to the press and the committee. His dedicated concern and enthusiasm for this particular Galleries is very evident in his constant indication that these Galleries will be the most unique in the nation today.

The three-year, $450,000 fund-raising drive, spearheaded by the Nebraska Medical Auxiliary, has begun! Foundations, corporations, organizations and individuals have, and will be given, the opportunity to support this gift to the health education of the Nebraska people. This means that we have to have pledges and donations of $12,500 per month for three years. So far, we have accomplished this goal. County auxiliaries have had special events, and each has contributed financially to this project. Cohesiveness and purpose have been the added ingredients to our organization through this project. We will be successful!

For the third year, workshops were held in three locations across the state. The State President and President-Elect, along with chairpersons of several areas, took part in these day-long meetings. In two locations, evening meeting were held with physician husbands to present slide presentations of the Health Galleries. The S.O.S. series was popular, featuring local policemen disucssing movies on RAPE and SELF DEFENSE.

We are hoping that our AMA-ERF contributions will be significant this year. Irene Kelley will be retiring from the position of chairperson. She has been a tireless promoter of AMA-ERF in Nebraska for many years.

This has been a special year as far as legislation is concerned. The Auxiliary has been the tireless right arm of the Nebraska Medical Association in their efforts to pass medical liability legislation in the state. Many letters, telephone calls and meetings (luncheons and dinners) with State Senators have been made by auxilians. At this point in time, we are encouraged by the response of most of the State Senators, and we feel certain the legislation will be successful.

The new innovation, suggested by National, of billing dues along with the husbands was instigated this year (for the year 1976-1977). Because the Nebraska Medical Association's year is from January to January, and the Auxiliary's is June to June, we have found that some overlapping will be confronted. This may be the reason for a slight misunderstanding, especially among the members-at-large, as indicated by the drop of membership this year. However, if this method is successful, membership should increase substantially next year.

Certain activities continued to be successful year after year. Eye Glasses and contributions for SKIP continue to be favorites for international health. The GEMS program has been incorporated with the State Extension Services. Talking books, friendly visitation in nursing homes, immunization information and rural health information was prepared by the Auxiliary. A Worry-In was held in conjunction with a Mental Health Clinic in one county, and another county collected clothing for teenagers held by probation officers.

Participation means "good health" for the "good life" in Nebraska.

Patsy Moore (Mrs. Y. S.)
State President 1975-76

In Memoriam

By medicine life may be prolong'd
yet death
Will seize the doctor too.
—Shakespeare

DR. SIEGFRIED H. BRAUER

Doctor Siegfried H. Braur died on May 11, 1976, at the age of 77. Doctor Brauer was born in Freeman, South Dakota on November 9, 1899.

He graduated from Oklahoma University in 1924 and received his medical degree from the University of Oklahoma School of Medicine in 1926.

Doctor Brauer received his fifty-year certificate from the Nebraska Medical Association in 1976. He was elected to the Legislature in 1964 and served for four years.

He is survived by his wife, Pauline; sons, S. H. Brauer, Jr. of Lincoln, R. E. Brauer of Norfolk and Dr. A. J. Brauer of Florence, Florida; daughter, Mrs. Norman (Virginia) Raasch of Norfolk; 21 grandchildren and seven great-grandchildren.

DR. ADOLPH F. SRB

Dr. Srb, a general practitioner and surgeon for 56 years in Omaha, died April 29, 1976, at 84 years of age. He was a native of Dodge, Nebraska, and attended Creighton Medical School. He received his 50-year pin in 1965. Dr. Srb was a veteran of World War I, and received the Silver Star in France in 1918 after being wounded.

Dr. Srb organized an orchestra of children in the late 1930s. The orchestra performed an annual Memorial Day concert at the Bohemian National Cemetery in Dodge for many years.

Dr. Srb is survived by sons Rudy W., Omaha; Warren J., Papillion; Kay R. and Joseph, Omaha; Douglas G., Miami, Florida; daughters Mrs. Jerry (JoAnn) Schmid, Lincoln; Mrs. John (Gwen) Stirek, Lake Oswego, Ore.; sister Ardath, Long Beach, Cal.; and by 21 grandchildren.

Between Cases

Department Of Statistics.

I have read that an American is born every 10 seconds, and that an American dies every 16 seconds. That means we gain one person about every 26 seconds. We are still growing then; we can hardly believe our own census.

Words We Can Do Without.

Topicality, modality, a good number of, first and foremost, replicate, commonality.

What Does It Mean?

Bursa: a wineskin.

Department Of Statistics.

Thirty percent of hospital admissions in the U.S. are for digestive diseases.

On Thanatology.

The long habit of living indisposeth us for dying.

Thomas Browne

Remember?

A change of air.

I Read It Somewhere.

Dumas caught cholera and cured himself by drinking a glassful of ether.

The Consultation.

The patient was seen by the specialist, and it was his opinion that the pain was of unknown etiology.

Heard On TV.

Standing ovulation.

GU Department.

Prostate gland movin' right along. Don't you offer me no coffee, no tea. I would die in painful agony before you ever forced me to drink a beer.

Harold: In the boom boom room, by David Rabe.

The Physical.

Patient does favor both legs as he walks.

Heard On The Steps Of A Hospital.

Who cares about metastases, just so she's well.

Somebody didn't communicate.

Department of Pulmonology.

All that wheezes is not asthma.

Jackson.

Quote Unquote.

There is no cure for birth and death, save to enjoy the interval.

Santayana.

What Someone Said To Me.

This is that.

Quote Unquote.

Ask not for whom the monitor beeps; it beeps for us all.

Halberstam and Lesher: A coronary event.

Section On Surgery.

Bloodletting was the chief operation of surgeons for centuries.

On Dieting.

If you wish to grow thinner,
Diminish your dinner.

Henry Leigh.

On Pulling The Plug.

Death is not the greatest of ills; it is worse to want to die, and not be able to.

Sophocles.

On Reviewing The Literature.

To be ignorant of what happened before you were born is to be ever a child.

Cicero.

On Gerontology.

Everyone is too old for something, but no one is too old for everything.

Anon.

The Menu.

One egg: 95 cents.

That's $11.40 for a dozen eggs, and maybe that's why medicine costs so much.

Heard On TV.

There is a tremendous paucity of death.

On Growing Up.

Menarche is now attained three years earlier than a century ago.

—F.C.

Picture Gallery At the Annual Session, 1976, of the Nebraska Medical Association.

Doctor Warren G. Bosley presenting AMA-ERF check to Doctor Joseph M. Holthaus.

Doctor Warren G. Bosley presenting AMA-ERF check to Doctor Paul R. Young.

Mr. Robin Roberts speaking at Athletic Medicine Luncheon.

Scientific Sessions Committee Chairman, Doctor Joel T. Johnson, presiding at Fun Night.

A urinal full of beer.

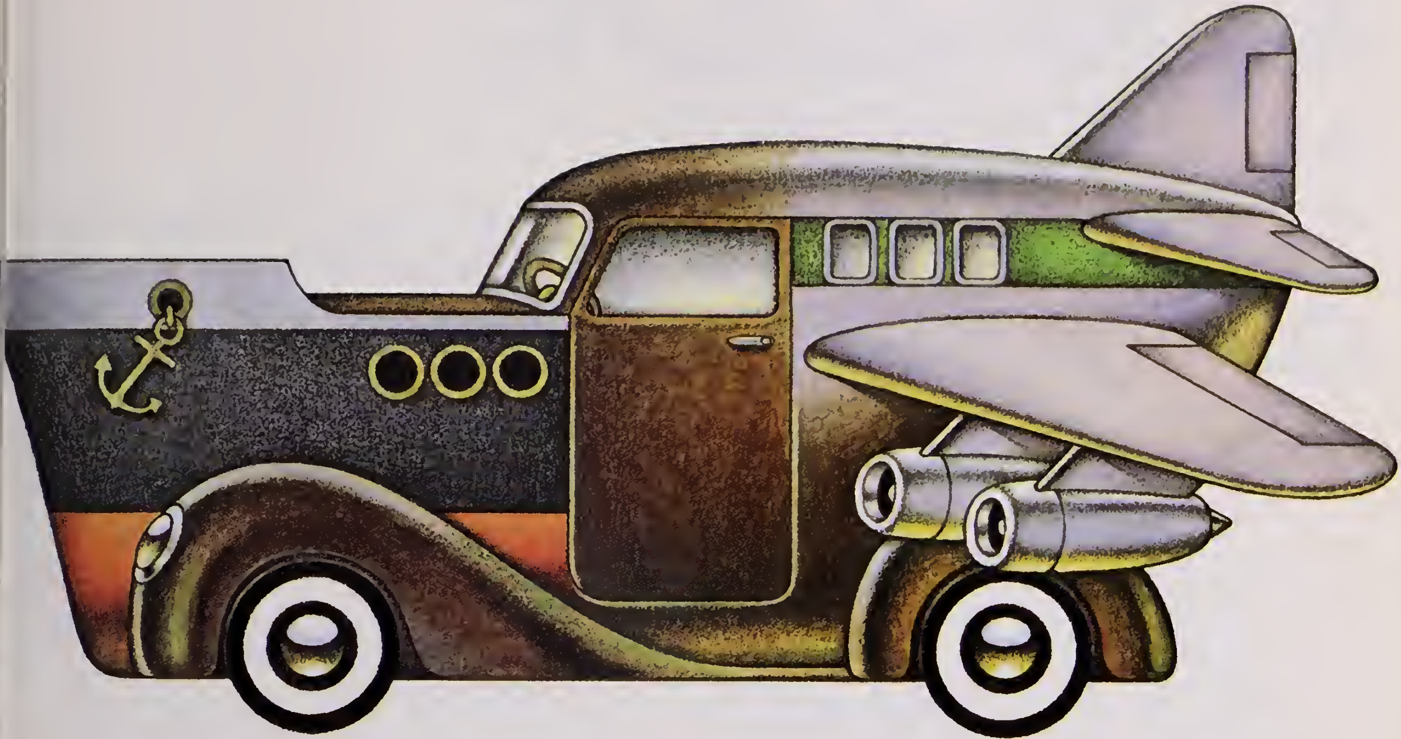
Fun Night.

Buffalo County Medical Society President, Doctor William H. Northwall, presiding at Annual Distinguished Luncheon.

Annual Distinguished Luncheon.

Doctor Warren G. Bosley installing Doctor Harlan L. Papenfuss as 1976-77 NMA President.

Doctor Warren G. Bosley presenting memento to Doctor Harlan L. Papenfuss.



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Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

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Before prescribing, see complete prescribing information in SK&F literature or *PDR*. The following is a brief summary.

* **Warning**
This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** *Edema* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, **check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently**—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologi studies in cirrhotics with splenomegaly. Anti hypertensive effects may be enhanced in post sympathectomy patients. The following ma occur: hyperuricemia and gout, reversible ni trogen retention, decreasing alkali reserve wit possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may b altered), digitalis intoxication (in hypokalemia) Use cautiously in surgical patients. Concomitan use with antihypertensive agents may result in a additive hypotensive effect. 'Dyazide' interfere with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness dizziness, headache, dry mouth; anaphylaxis rash, urticaria, photosensitivity, purpura, othe dermatological conditions; nausea and vomitin (may indicate electrolyte imbalance), diarrhea constipation, other gastrointestinal disturbances Necrotizing vasculitis, paresthesias, icterus, pan creatitis, xanthopsia and, rarely, allergic pneu monitis have occurred with thiazides alone.

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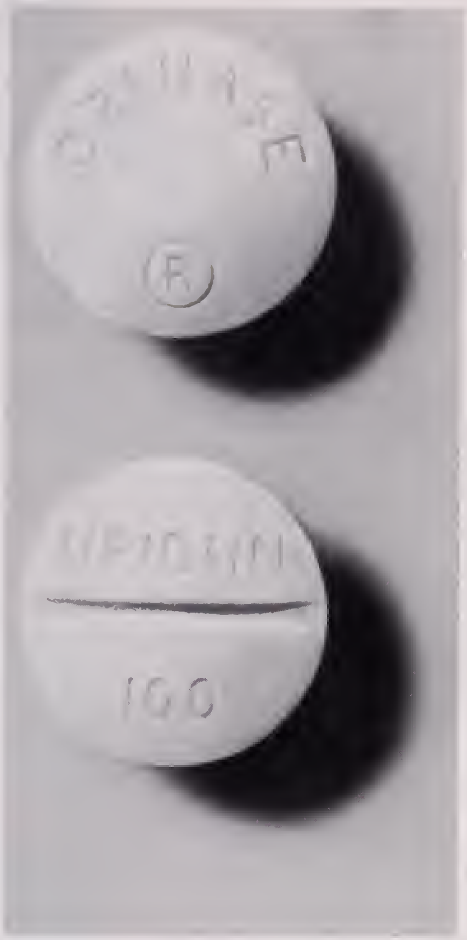

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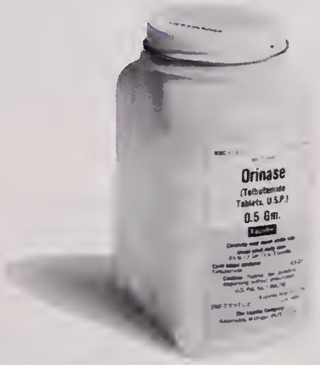

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WHEN ANXIETY INTERFERES.

The cardiac patient and anxiety.

“The [cardiac] patient is anxious about minor symptoms, about the implications of his diagnosis, and about real or imagined limitations of function.”*

The worst is over. The cardiac patient is out of the acute stage, out of the hospital, and well on his way to recovery. How quickly he comes back to near normal functioning may depend on his psychological as well as his physical rehabilitation.

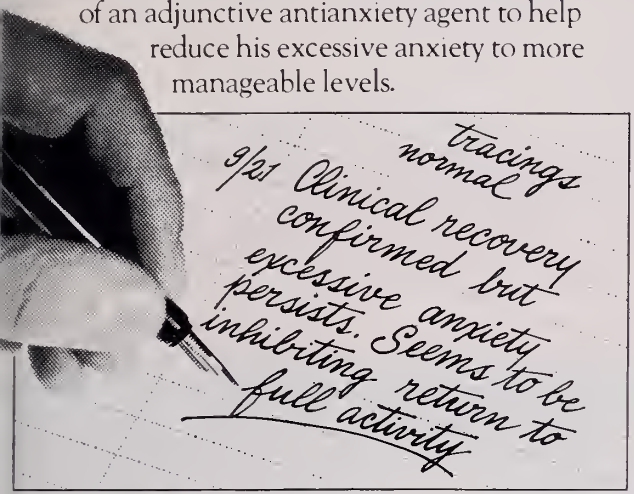
Clinical anxiety, for example, may be one reason for prolonged recuperation following cardiac healing. Yet anxiety can sometimes be beneficial in facilitating patient compliance.

The patient who is realistically concerned about resuming his precoronary functioning may be highly motivated to adhere to his rehabilitation regimen. However, the cardiac patient with *excessive* or unresolved anxiety may be so fearful of future heart failure that he refrains from your prescribed regimen. These excessively anxious cardiac patients eventually present the same clinical characteristics as patients deconditioned by bed rest.

Excessive anxiety can interfere with patient management

When excessive anxiety diminishes your

patient's ability to participate fully in his rehabilitation program, your counseling and reassurance are often sufficient. But when his anxiety is so great that it actually interferes with his ability to listen and respond, you may want to consider the addition of an adjunctive antianxiety agent to help reduce his excessive anxiety to more manageable levels.


tracings normal
9/21 Clinical recovery confirmed but excessive anxiety persists. Seems to be inhibiting return to full activity

Librium® (chlordiazepoxide HCl) an effective adjunct to your reassurance and counseling

Safety: Librium has a highly favorable benefits-to-risk ratio and a wide margin of safety. Because of its low incidence of side effects, it is regarded as one of the safest antianxiety agents available. And Librium does not adversely affect the cardiovascular system. See complete product information for warnings, precautions and adverse reactions.

Performance: Hundreds of clinical trials, thousands of published papers, and millions of patients comprise the record of performance for Librium.

Concomitant use: Of special significance in treating the cardiac patient already taking multiple agents is the fact that Librium is used concomitantly with most primary medications, such as cardiac glycosides, diuretics and antihypertensives.

*Zohman BL: *Geriatrics* 28:110-119, Feb 1973

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

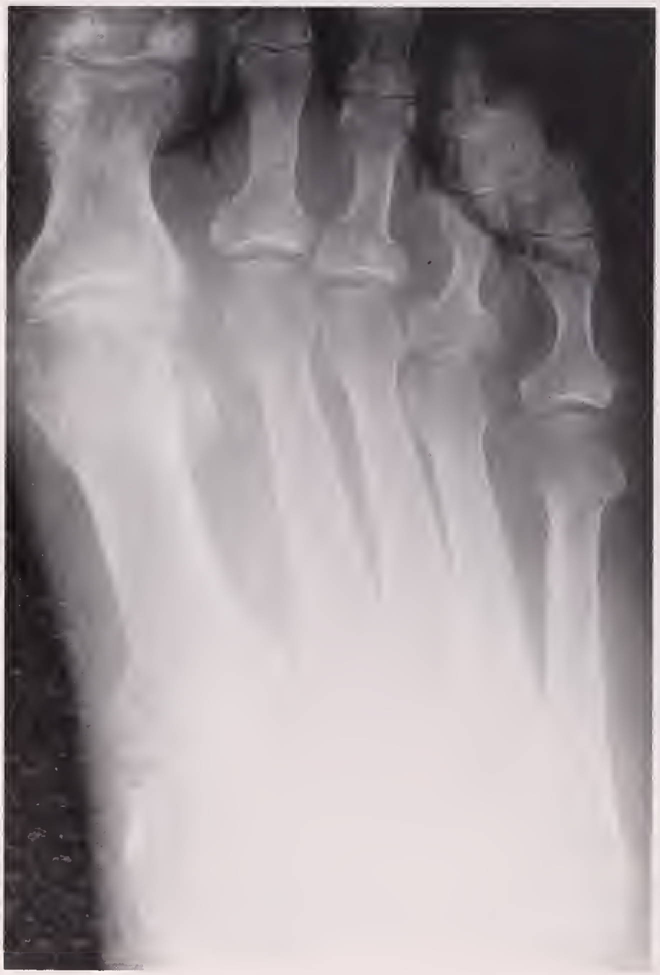
Supplied: Librium® Capsules containing 5 mg, 10 mg or 25 mg chlordiazepoxide HCl. Libritabs® Tablets containing 5 mg, 10 mg or 25 mg chlordiazepoxide.

ROCHE
Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

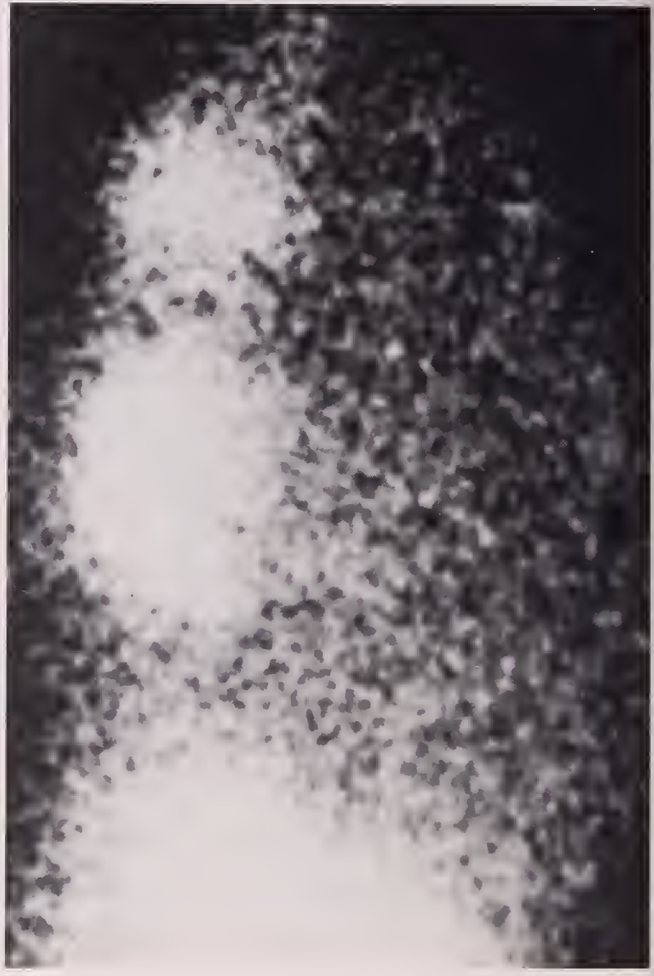
Adjunctive
LIBRIUM® ⓒIV
chlordiazepoxide HCl/Roche
5 mg, 10 mg, 25 mg capsules

THE ANXIETY-SPECIFIC

VISUAL FOCUS ON ACUTE GOUTY ARTHRITIS



Foot of patient with acute gouty arthritis as seen by conventional x-ray.



Scintiphotogram of same foot reflects inflammatory process.

The scintiphotograph on the right shows increased uptake of radiotechnetium polyphosphate in the metatarsophalangeal joint and the proximal interphalangeal joint of the great toe of a patient with acute gouty arthritis. This increased uptake probably results from increased vascularity in the affected areas.

For a more detailed description of scintiphotography, see "addendum" at right.

THERAPEUTIC FOCUS
ON

CAPSULES, 25 mg and 50 mg

INDOCIN®

(INDOMETHACIN | MSD)

*helps relieve pain
and other symptoms
of inflammation
in acute
gouty arthritis
in selected patients*

INDOCIN is a potent drug with anti-inflammatory, antipyretic, and analgesic properties. It should not be used in conditions other than those recommended. Although INDOCIN does not alter the progressive course of the underlying disease, in selected patients with acute gouty arthritis it has been found highly effective in relieving pain and in reducing fever, swelling, and tenderness.

MSD
MERCK
SHARP&
DOHME

For a brief summary of prescribing information, please see following page.

addendum

MSD
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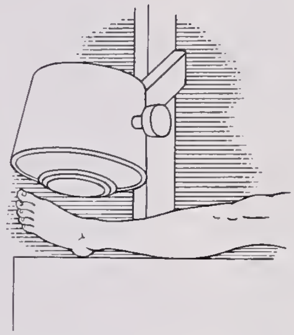
DOHME

Facts about Scintiphotography



In recent years a variety of radiopharmaceuticals have been employed to aid in the diagnosis of bone and joint disorders. The joint-imaging technique consists of injecting technetium polyphosphate intravenously, and imaging is performed with the scintillation camera two hours after the administration of the radionuclide. In general, for joint surveying, the shoulders, elbows, hands, wrists, knees, ankles, feet, and vertebral column are mapped. The entire scanning process takes approximately one hour. The criterion for a positive image is a higher concentration of radioactivity in a joint region than in adjacent nonarticular bone. In effect, each patient serves as his own control.

INDOCIN®
(INDOMETHACIN | MSD)

helps relieve pain
and other symptoms
of inflammation
in acute
gouty arthritis
in selected patients

IMPORTANT NOTE: INDOCIN (Indomethacin, MSD) cannot be considered a simple analgesic and should not be used in conditions other than those recommended. The drug should not be prescribed for children because safe conditions for use have not been established.

Because of the high potency of the drug and the variability of its potential to cause adverse reactions, the following are strongly recommended: 1) the lowest possible effective dose for the individual patient should be prescribed. Increased dosage tends to increase adverse effects, particularly in doses over 150-200 mg per day, without corresponding clinical benefits; 2) careful instructions to, and observations of, the individual patient are essential to the prevention of serious and irreversible, including fatal, adverse reactions, especially in the aging patient.

Contraindications: Children 14 years of age and under; pregnant women and nursing mothers; active gastrointestinal lesions or history of recurrent gastrointestinal lesions; allergy to aspirin or indomethacin.

Warnings: *Gastrointestinal Effects:* Because of the occurrence and, at times, severity of gastrointestinal reactions, be continuously alert for any sign or symptom signaling a possible gastrointestinal reaction. The risks of continuing therapy with INDOCIN in the face of such symptoms must be weighed against the possible benefits to the individual patient. Gastrointestinal effects may be reduced by giving the drug immediately after meals, with food, or with antacids. Use greater care in aging patients.

Ocular Effects: Corneal deposits and retinal disturbances, including those of the macula, have been observed in some patients on prolonged therapy. Discontinue therapy if such changes are observed. Ophthalmologic examination at periodic intervals is desirable in patients on prolonged therapy.

Central Nervous System Effects: INDOCIN may aggravate psychiatric disturbances, epilepsy, and parkinsonism, and should be used with considerable caution in patients with these conditions. If severe CNS adverse reactions develop, discontinue the drug.

Precautions: Blurred vision may be a significant symptom that warrants a thorough ophthalmologic examination. Patients should be cautioned about engaging in activities requiring mental alertness and motor coordination, as driving a car. Headache which persists despite dosage reduction requires complete cessation of the drug. May mask the usual signs and symptoms of infection; therefore, the physician must be continually on the alert for this and should use the drug with extra care in the presence of existing controlled infection. After the acute phase of the disease is under control, an attempt to reduce the daily dose should be made repeatedly until the patient is off entirely.

Drug Interactions: Although INDOCIN has not influenced the hypoprothrombinemia produced by anticoagulants, patients on anticoagulant therapy should be observed closely for alterations in prothrombin time. In patients receiving probenecid, plasma levels of indomethacin are likely to be increased and a lower total daily dose of INDOCIN may produce a therapeutic effect; increases in the dose of INDOCIN should be made cautiously and in small increments.

Adverse Reactions: *Gastrointestinal Reactions:* Single or multiple ulcerations of the esophagus, stomach, duodenum, or small intestine, including perforation and hemorrhage, with fatalities in some instances; rarely, intestinal ulceration has been associated with stenosis and obstruction; gastrointestinal bleeding without obvious ulcer formation; perforation of preexisting sigmoid lesions (diverticulum, carcinoma, etc.); rarely, increased abdominal pain in ulcerative colitis patients or development of ulcerative colitis and regional ileitis; gastritis may persist after the cessation of the drug; nausea, vomiting, anorexia, epigastric distress, abdominal pain, and diarrhea.

Eye Reactions: Corneal deposits and retinal disturbances, including those of the macula, have been observed on prolonged therapy; blurring of vision.

Hepatic Reactions: Rarely, toxic hepatitis and jaundice, including some fatal cases.

Hematologic Reactions: Aplastic anemia, hemolytic anemia, bone marrow depression, agranulocytosis, leukopenia, and thrombocytopenic purpura may occur rarely. Since some patients manifest anemia secondary to obvious or occult gastrointestinal bleeding, appropriate blood determinations are recommended.

Hypersensitivity Reactions: Acute respiratory distress, a rapid fall in blood pressure resembling a shock-like state, angioedema, dyspnea, asthma, angiitis, pruritus, urticaria, skin rashes, purpura.

Ear Reactions: Hearing disturbances—deafness reported rarely; tinnitus.

Central Nervous System Reactions: Psychic disturbances including psychotic episodes, depersonalization, depression, and mental confusion; coma; convulsions; peripheral neuropathy; drowsiness; lightheadedness; dizziness; syncope; headache.

Cardiovascular-Renal Reactions: Edema, elevation of blood pressure, hematuria.

Dermatologic Reactions: Loss of hair, erythema nodosum.

Miscellaneous: Rarely, vaginal bleeding, hyperglycemia, glycosuria, ulcerative stomatitis, and epistaxis.

Supplied: Capsules containing 25 mg indomethacin each, in single-unit packages of 100 and bottles of 100 and 1000; capsules containing 50 mg indomethacin each, in single-unit packages of 100 and bottles of 100.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

MSD MERCK SHARP & DOHME

Our Medical Schools

Leptospirosis.

A disease carried primarily by animals could affect outstate Nebraskans physically and economically, according to the vice-chairman of the University of Nebraska Medical Center's Department of Medical Microbiology.

Dr. Norman Miller said leptospirosis is "primarily a disease of animals, both domestic and wild, but is transmissible to man." He said it can cause severe illness in man and domestic animals such as cattle, swine, horses and dogs.

Although there are about 100 documented cases of leptospirosis in Americans annually, many more go undetected "because the symptoms resemble the flu," said Dr. Miller, who has spent the last 12 years studying the disease.

He said leptospirosis may last from seven to 10 days in man, and in severe cases it can last up to three weeks and lead to meningitis, conjunctivitis, or jaundice. For animals the disease can play greater havoc. Besides causing hemorrhage and jaundice, it can lead to death in some cases.

He said that it may also lead to economic trouble for ranchers by causing cattle to abort during the calving season. For many ranches the calving season falls during the spring and summer, usually the peak season for leptospirosis because of the increased rainfall.

Water in puddles or ponds serves as a seeding ground for the disease, caused by bacteria usually carried in the kidneys of wild animals, especially rodents. In following a urine-to-oral route of infection, the bacteria is usually urinated into water used for drinking or swimming by man or his animals.

Man may contract the disease directly from domestic animals by coming in contact with contaminated urine or organs. This is especially true for veterinarians, ranchers, or workers in slaughter or packing houses.

While there are vaccines against the disease for animals, there are none for man, said Dr. Miller. There are different types of vaccines used in Nebraska containing those strains which are most prevalent in the state, he said.

Nurse anesthetist school accredited.

The St. Joseph Hospital School of Anesthesia has received a three-year renewal of its accreditation from the American Association of Nurse Anesthetists.

Jean Behrens, director of the School of Anesthesia said the school has been accredited since its opening in 1947. The accreditation procedure lasts two days with the inspection team meeting with students, graduates, and administrators.

New drug for asthma.

America's seven million asthmatics could be breathing easier because of a new drug tested by the University of Nebraska Medical Center's Regional Chest Center.

The Chest Center was one of several sites in the nation which conducted a two-year study of the drug Vanceril on 90 asthmatics. According to Dr. Irving Kass, Larson Professor of Medicine and director of the Chest Center, Vanceril, a very refined steroid, was effective in controlling asthma in 80 percent of the Chest Center's 40 test subjects.

"If the present trend continues, it will probably represent to asthmatics what the discovery of penicillin meant to persons with infection," said Dr. Kass, who collaborated on the project with Dr. S. V. Nair, Assistant Professor of internal medicine at the center.

Up to now one of the most effective drugs for asthma has been certain steroids, which are a form of cortisone and can produce harmful side-effects such as swelling of the face, cataracts, ulcers and softening of the bones.

"Although the long term effects of Vanceril aren't known, the good thing about the drug is that it controls asthma without the side-effects associated with steroids because it is not only absorbed slowly by the lungs, but is almost immediately metabolized by the liver," he said. "People on this aerosol medication are frequently free of wheezing."

Dr. Kass said because Vanceril is "500 times more potent as an anti-inflammatory agent than any steroid we've ever used," it can be administered in smaller doses.

Developed in England four years ago and approved by the Food and Drug Administration in May, Vanceril is used with other forms of therapy as a preventive in breaking the chain of events which cause asthma, Dr. Kass said.

New chancellor at U of N Medical Center.

Appointment of a search committee for a new chancellor at the University of Nebraska Medical Center was announced recently by D. B. Varner, president of the University of Nebraska.

The committee will receive nominations until July 15. President Varner has asked the group to forward its selections to him and the Board of Regents by early September.

Dr. Robert Sparks, current Medical Center chancellor, has resigned to take a position with the Kellogg Foundation in Battle Creek, Michigan.

WashingtoNotes

Health Maintenance Organization.

The Senate has easily approved (80-8) a measure similar to one adopted by the House last fall authorizing $250 million over five years for HMOs and relaxing or removing many current federal restriction.

The snail's pace growth of HMOs, a specific type of prepaid group practice organization, since the original HMO bill was approved three years ago, prompted the present Congress to liberalize the program in hopes the concept might move more quickly.

The most controversial feature of the measure in Senate debate was elimination of the open enrollment requirement for most HMOs. Proponents of the provision argued that it was needed in order to allow HMOs to be able to compete with other types of health insurance.

The AMA, in testimony before House and Senate, asserted that the open enrollment requirement had been one of the prime justifications for enacting the HMO bill in the first place.

In order to attract more physicians to HMOs, the bill would allow physicians to devote as little as 35 percent of their practice to HMOs and still be members of the HMO group. Current law requires more than 50 percent of professional time.

The Senate bill did not touch on the dual option provision approved by the House, leaving the way clear for this to be enacted. The original HMO bill required employers to give their employees a choice between standard health insurance and a qualified HMO. The so-called dual option encountered trouble with labor laws covering collective bargaining rights. As a result, the House gave labor at collective bargaining the right to choose a standard health insurance plan as the exclusive plan for union members without a worker's option to select an HMO. But the bill does not permit the reverse, selection of an HMO by labor to the exclusion of a standard plan.

Carter and national health insurance.

Former Georgia Gov. Jimmy Carter will send Congress a proposed national health insurance program right off the bat if he becomes President.

The apparent Democratic presidential nominee told reporters "I'm not going to wait . . . on welfare reform, national health insurance, etc., I intend to be ready to go with that the first of the year."

The Democratic Platform Committee.

The Democratic Platform Committee recommended a comprehensive national health insurance plank for the party's presidential convention in July. The recommended health plank endorsed no specific measure, a blow to labor's hopes for unqualified backing of the Kennedy-Corman NHI plan.

The committee voted a statement on health that says NHI "should be financed by a combination of methods that will be adequate but not impose new or undue burdens. Consideration should be given to developing a means of support for NHI that taxes all forms of economic income."

The AMA & the Democrats.

The AMA has told the Democratic Convention Platform Committee that health care would come out second best in the scramble for federal dollars if a new Congress enacted proposals to restructure the entire health system.

Such proposals (which would include the labor-backed Kennedy-Corman bill) advocate a federal government undertaking to finance total medical care of all persons, regardless of their financial circumstances, through additional taxes which would result in an overpromise of benefits which could not be fulfilled, the AMA said.

Said the AMA:

"We are strongly concerned with and object strenuously to the proposals which would seek to restructure the entire health system. Such proposals are based upon theoretical paradigms and do not take into proper consideration the successes of, and general public satisfaction with, our delivery system. Such proposals would impose upon the public a single monolithic, no-choice system in the name of public responsiveness while ignoring the advantages and desirability of the pluralistic system."

Other AMA positions before the Platform Committee:

*Maternal and Child Health — provide full and adequate funding.

*Public and Environmental Health — we must extend and expand efforts to control communicable diseases, with particular emphasis upon the control of and research on vaccines against venereal disease which in fact reached epidemic proportions.

*Department of Health — is needed at the cabinet level in order to maximize the ability of Government to respond appropriately to the health needs of all the American people, to eliminate duplication in programs, and to assure maximum efficiency . . .

*Mental Health, Drug Abuse, and Alcoholism — full and complete coverage in health insurance of mental health treatment . . . increased funding for manpower training and program implementation in alcoholism, drug abuse and mental health.

*Emergency Medical Services — extend high quality services to all communities in a national program of providing emergency medical service.

*Indian Health — Increase substantially the program funding and upgrade and improve facilities and services.

NHLI becomes NHLBI.

President Ford has signed legislation expanding the role of the National Heart and Lung Institute in blood disease and resources. The Institute's name will be changed to The National Heart, Lung and Blood Institute.

Up to 30 centers will be established to conduct research, provide training, and carry out demonstrations of advanced techniques of prevention, diagnosis and treatment. Ten centers will focus on heart and blood vessel diseases, 10, pulmonary diseases, and 10 on blood diseases, medical use of blood and blood products, and blood resource management.

Smoking.

A majority of adult Americans support a ban on cigarette advertising according to a survey by the National Cancer Institute and the Center for Disease Control.

The survey of 12,500 persons found decreasing tolerance of cigarette smoking since 1970. Nearly two thirds of those surveyed, including one third of the smokers polled, said it was annoying to be near a person smoking cigarettes. Also, 56 percent, including 40 percent of the smokers, said that cigarette advertising should be stopped completely.

The survey showed that the proportion of cigarette smokers has declined since 1970, although the total number of smokers has increased by 875,000.

Coming Meetings

CRIPPLED CHILDREN'S CLINICS
August 14 — Norfolk, Elks Lodge
September 11 — McCook, Elks Lodge

THE AMERICAN CANCER SOCIETY AND NATIONAL CANCER INSTITUTE — National Conference on Cancer Research and Clinical Investigation at the Chase-Park Plaza Hotel in St. Louis, Missouri, September 20 through 22, 1976. The purpose of the conference is to present important developments in basic cancer research and to demonstrate the relationship of this work to clinical investigation and to the changing concepts of optimal patient care. For further information, write to: American Cancer Society, Nebraska Division, 6910 Pacific Street, Omaha, 68106.

NEBRASKA MEDICAL ASSOCIATION FALL SESSION — September 30 - October 1 & 2, 1976, Lincoln Hilton Hotel, Lincoln, Nebraska.

44th ANNUAL POSTGRADUATE ASSEMBLY; OMAHA MID-WEST CLINICAL SOCIETY; October 25, 26 and 27, 1976; Hilton Hotel, Omaha, Nebraska. Write to: Mrs. Janet S. Noll, Executive Secretary, Omaha Mid-West Clinical Society, 540 Medical Arts Building, Omaha, Nebraska 68102.

AMERICAN MEDICAL ASSOCIATION — 30th Clinical Convention, December 4-8, 1976, Philadelphia, Pennsylvania.

NEBRASKA MEDICAL ASSOCIATION ANNUAL SESSION — May 1-4, 1977, Holiday Inn, Omaha, Nebraska.

INDIANA CHAPTER ACEP-EDNA EMERGENCY MEDICINE SEMINAR will be held at the Airport Hilton Inn, Indianapolis, Indiana on May 11 through May 14, 1977. CME Credits Applied For: 20 hours; Co-sponsor: Indiana University School of Medicine. Fee: $50.00 - $100.00. Contact: David Gettle, M.D., 10005 Hillsdale, Carmel, Indiana 46032, 317-844-7105. Note: This seminar is in conjunction with the first day of Time Trials for the Indianapolis 500 Memorial Day Race.

AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 18-23, 1977, San Francisco, California.

POSTGRADUATE EDUCATION FOR PEDIATRICIANS AND OBSTETRICIANS — The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate programs for pediatricians and obstetricians in the field of Maternal and Child Health and Family Planning. Program areas available at the present time include nine-month programs in Maternal and Child Health, in the Health of the School-Age Children and Youth, and Day Care and the Preschool Child. Twenty-one month programs in Care of Handicapped Children and Comprehensive Health Care, and a thirty-three month program in Perinatology are also available. These programs all lead to the degree of Master of Public Health, and tax-exempt Fellowship support is available. Applications are now being accepted for the group entering September, 1977. For information, write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

COLONOSCOPY TRAINING PROGRAM — The New York Society for Gastrointestinal Endoscopy supported by a Cancer Control Grant from the American Cancer Society, will now offer two week training programs in the techniques of fiberoptic colonoscopy for the detection and management of colonic neoplasm to qualified physicians and surgeons. The training program will be conducted at several institutions in New York City. Preference will be given to those physicians and surgeons who have had previous experience with fiberoptic endoscopy and who are from community where fiberoptic colonoscopy is not yet readily available. Please send curriculum vitae to: Paul Sherlock, M.D., Chief Gastroenterology Service, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, New York 10021.

The Letter Box

Dear Dr. Cole,

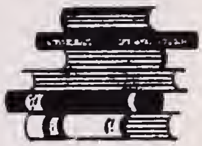
I am writing to tell you how much I enjoy your magazine. Of the 25 plus publications my husband gets we really look forward to the Nebraska Medical Journal because of your contribution.

I'll bet I'm not the only wife who really got a good chuckle out of HOW TO LOOK LIKE A DOCTOR. I showed it to the local veterinarian's wife and she agreed also.

Thank you for the time and effort you must put in this publication every month. Keep up the good work.

Sincerely,
Eulalia Maly,
wife of Ronald F. Maly, M.D.

Books



Book reviewed.

Current pediatric diagnosis and treatment; edited by C. Henry Kempe, M.D., Henry K. Silver, M.D., and Donough O'Brien, M.D.; 1053 pages; limpcover $15.00; published 1976 by Lange Medical Publications, Los Altos, California.

CPD&T is now in its fourth edition, having previously come out in 1970, 1972, and 1974; it is thus obviously up-to-date. There are 38 chapters, written by 48 authors, many from the University of Colorado Medical Center, and including the three editors.

The print is good, there is a nice index, and the final chapter deals with interpretation of biochemical values and all sorts of tests. There are tables and references and occasional figures.

The reading is easy, the text is all-inclusive; it is a fairly large book, and over a thousand pages of good writing and new information is a bargain.

—F.C.

Medicinews

Physical therapy and speech.

The Department of Health, Education, and Welfare has published final regulations for clinics, rehabilitation agencies, and public health agencies that provide Medicare patients with outpatient physical therapy and/or speech pathology services.

Patients may be accepted for treatment by these facilities only on the order of a physician responsible for the general medical direction of such services. For each patient, a written plan of care must be established and reviewed periodically by the physician. The plan must indicate anticipated goals and specify the type, amount, frequency, and duration of physical therapy or speech pathology services.

Patients in need of outpatient physical therapy services may also be treated by private practitioners, but only on the order of a physician who assumes responsibility for the general medical direction of such services. The requirements for a written plan of care for physical therapists in private practice are the same as those for clinics, rehabilitation agencies, and public health agencies.

Health care costs, 1975.

The average health care bill for a person 65 or older was $1,360 in fiscal 1975, almost six and one half times the average health care expense of persons under age 19, and almost three times that of people age 19 to 64.

Health care expenditures for the ages rose 18.0 percent in fiscal 1975, compared with an 11.4 percent increase in 1974. For the young and intermediate age groups, the increase in expenditures was 12.0 and 13.5 percent, respectively.

Private payments (private health insurance, direct out-of-pocket payments by individuals, and philanthropy and industry) accounted for 60 percent of all health care expenditures. Public funds paid the remainder.

Government spending for health care rose to $41 billion in 1975, an increase of 22 percent over fiscal 1974. The largest increase was for the aged (27 percent), reflecting a rise of 31 percent in Medicaid spending and an increase of 29 percent in Medicare expenditures for this group. Medicare payments accounted for 72 percent of hospital expenditures for the aged and 54 percent of doctor bills.

Third party payments (government, private health insurance, and philanthropy and industry) accounted for 71 percent of the aged's health care expense in 1975; nevertheless, a person 65 or over had direct expenses of $390. In 1966, the fiscal year before Medicare began, third party payments provided 47 percent of expenditures, with the aged paying $237 directly.

Accreditation.

Hospital accreditation letters and related documents furnished to HEW (with the hospital's authorization) by the Joint Commission on Accreditation of Hospitals (JCAH), for Medicare purposes would be exempted from public disclosure requirements of the Freedom of Information Act under a regulation proposed today by the Department of Health, Education, and Welfare.

The regulation would maintain the confidentiality of the letters and documents furnished by the JCAH under section 1865 of the Social Security Act. The law says that an "accreditation survey" of an institution by the JCAH may be furnished by JCAH to HEW, if authorized by the institution, "on a confidential basis."

Under the law, hospitals accredited by the JCAH are deemed to meet most conditions for participation in Medicare. Of 6,700 hospitals participating in Medicare, 4,500 have JCAH accreditation. However, Medicare surveys a sample number of JCAH hospitals to compare Medicare requirements with those of the JCAH. The JCAH furnishes copies of its accreditation letters to the Social Security Administration as part of this process.

The new regulation represents a clarification of HEW policy on disclosure of the accreditation letters. Previously they were not considered to be "accreditation surveys," and thus were made available to the public under the Freedom of Information Act.

After the JCAH brought suit against HEW, "the question has been carefully reexamined and it has been concluded that the accreditation letters and accompanying Recommendations and Comments prepared by the JCAH concerning hospitals surveyed by it are confidential under the provisions of section 1865 (a) (2) of the Social Security Act," the regulation preamble states.

It's New

VAKUTAGE, marketed by Warner/Chilcott, is the first *completely disposable, pre-evacuated vacuum system for uterine aspiration/curettage*. VAKUTAGE eliminates the need for expensive and cumbersome electrical or mechanical vacuum sources. Each self-contained unit, equipped with a flexible plastic cannula/curette, is pre-charged with sufficient vacuum to complete specific procedures — VAKUTAGE 110 for *endometrial biopsy, menstrual induction and uterine curettage*; VAKUTAGE 355 for completion of a spontaneous incomplete abortion. Since the entire unit is used once and discarded, there are no aspiration or curettage instruments to sterilize before procedures or clean up afterward. VAKUTAGE 110 contains a transparent tissue collection trap which serves as a convenient lab specimen carrier. Unlike conventional vacuum pumps, VAKUTAGE is completely silent.

ADVERTISERS' INDEX

B

Bemidji Clinic, Ltd. 7

Burroughs Wellcome Company 9

D

Dairy Council of Central States, Inc. 5

Donley Medical Supply Co. 17

Duncan Aviation, Inc. 7

F

Flint Laboratories 10, 11, 12

L

Eli Lilly and Company 18

M

Medical Protective Co. 13

Merck Sharp & Dohme 314F, 314G, 314H

N

Norfolk Printing Co., Inc. 17

P

Pharmaceutical Manufacturers Association 14, 15

R

Roche Laboratories 2, 3, 21, 22, 314D, 314E

Roerig & Co. 314A

S

Smith Kline & French Laboratories 314B

U

Upjohn Company (The) 314C

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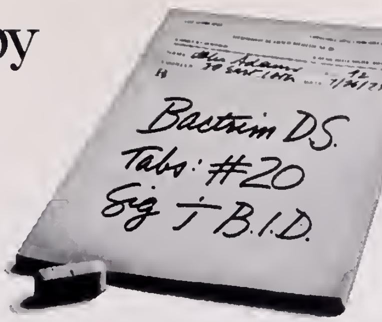
TWO FAMILY PHYSICIANS with large hospital practice wish third associate, who is Board Eligible, to join busy family practice. Located in Waterloo, Iowa, a northeast Iowa community of 75,000. All records dictated on the Problem Orientated Medical Records System. Contact: Drs. Ronald D. Flory and Ronald R. Roth, 611 Black's Bldg., Waterloo, Iowa 50703.

ANESTHESIA DIRECTOR (M.D.): 455 bed hospital to 705 beds in 1977 (suburban Omaha). Direct 3 anesthesiologists and 7 registered nurse anesthetists; serve on the Hospital's Medical Staff Executive Committee; 750 surgical cases per month; outpatient surgery; hospital based specialists: neonatology, pulmonary disease, cardiology, emergency medicine, pathology and radiology; affiliated education programs with two medical schools in the City (Nebraska and Creighton); guaranteed remuneration; malpractice insurance provided; candidates must be a Diplomate or eligible. Annual report and other health care corporation information available. James E. Johnson, Chief Executive Officer; Archbishop Bergan Mercy Hospital; 7500 Mercy Road; Omaha, Ne. 68124 (402) 398-6024.

OPEN-ENDED OPPORTUNITY for a General/Family Practitioner, with or without surgical involvement. Full-time physician is needed, though part-time or "Locum tenens" may be considered. The community is rural, with a population of approximately 3,000, and a service area of 8-10,000, located 120 miles Southwest of Minneapolis. It has a diversified economic base, underpinned by some of the country's most productive agricultural land. It has a broad range of religious, service and social organizations. The community currently has three general practitioners, one of whom is semi-retired, averaging 60 years of age. It has two clinics, a 34-bed hospital, a 60-bed nursing home and two pharmacies. A surgeon and pathologists from Mankato and a radiologist from Albert Lea make regular trips to the community and hospital. Medical specialists are available at Mankato (35 miles) and Albert Lea (25 miles). For additional information, contact D. H. Gilbert, Wells Municipal Hospital, 400 - 4th Avenue, S.W., Wells, Minnesota 56097. (507) 553-3111 or 553-5904.

10-day Bactrim therapy outperforms 10-day ampicillin therapy.



In a multicenter, double-blind study of patients with chronic or frequently recurrent urinary tract infection, Bactrim 10-day therapy outperformed ampicillin 10-day therapy by 27.2%, when comparing patients who maintained clear cultures for eight weeks. Criterion for "clear culture" was 1000 or fewer organisms/ml of urine.

While adverse reactions noted in this study were mild (*e.g.*, vomiting, nausea, rash), more serious reactions can occur with these drugs. See manufacturer's product information for complete listing. Maintain adequate fluid intake; perform frequent CBC's and urinalyses with microscopic examination.

Note: Bactrim tablets were used in these clinical trials. Bioequivalency studies show one Bactrim DS double strength tablet is equivalent to two Bactrim tablets.

Bactrim™ DS

(160 mg trimethoprim and 800 mg sulfamethoxazole)

Double Strength tablets Just 1 tablet B.I.D.

Bactrim™

(80 mg trimethoprim and 400 mg sulfamethoxazole)

2 tablets B.I.D.

For chronic or frequently recurrent cystitis and pyelonephritis due to susceptible organisms.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Chronic urinary tract infections evidenced by persistent bacteriuria (symptomatic or asymptomatic), frequently recurrent infections (relapse or reinfection), or infections associated with urinary tract complications, such as obstruction. Primarily for cystitis, pyelonephritis or pyelitis due to susceptible strains of *E. coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris* and *Proteus morganii.*

NOTE: The increasing frequency of resistant organisms limits the usefulness of antibacterials, especially in these urinary tract infections. The recommended quantitative disc susceptibility method (*Federal Register, 37*:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. **Data are insufficient to recommend use in infants and children under 12.**

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12. Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) every 24 hours
Below 15	Use not recommended

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole — bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10.

Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole; fruit-licorice flavored — bottles of 16 oz (1 pint).

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

In a multicenter study of patients with chronic or frequently recurrent urinary tract infections

Bactrim was 27.2%* more effective than ampicillin in keeping patients infection-free for 8 weeks.†

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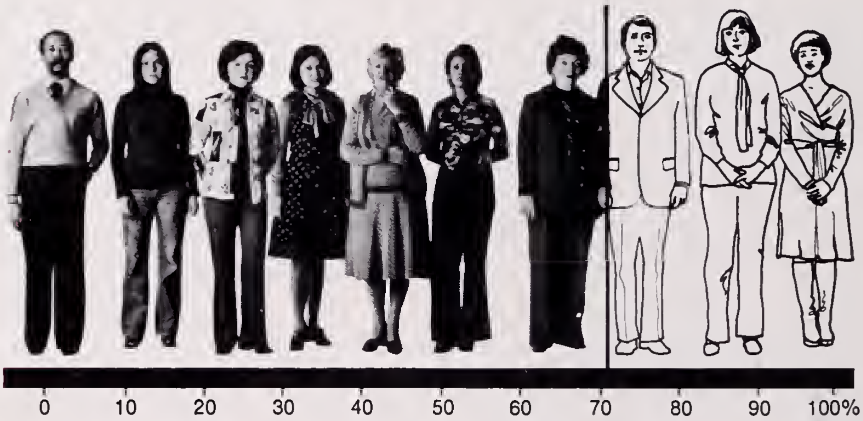
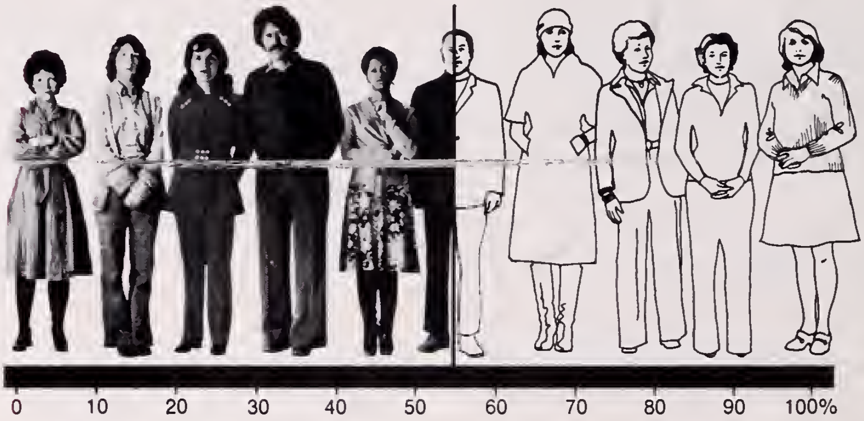


Bactrim–70.5% of 78 patients infection-free at 8 weeks.



ampicillin–55.4% of 74 patients infection-free at 8 weeks.

*This percentage is arrived at by the statistical method of dividing the difference between Bactrim and ampicillin results (15.1%) by the percent of ampicillin results (55.4%).

†Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey 07110

Bactrim™ DS

(160 mg trimethoprim and 800 mg sulfamethoxazole)

Double Strength tablets
Just 1 tablet B.I.D.

Please see summary of product information on preceding page. ROCHE

Note: Bactrim tablets were used in these clinical trials. Bioequivalency studies show one Bactrim DS double strength tablet is equivalent to two Bactrim tablets.

BALCONY

The Nebraska Medical Journal

September, 1976

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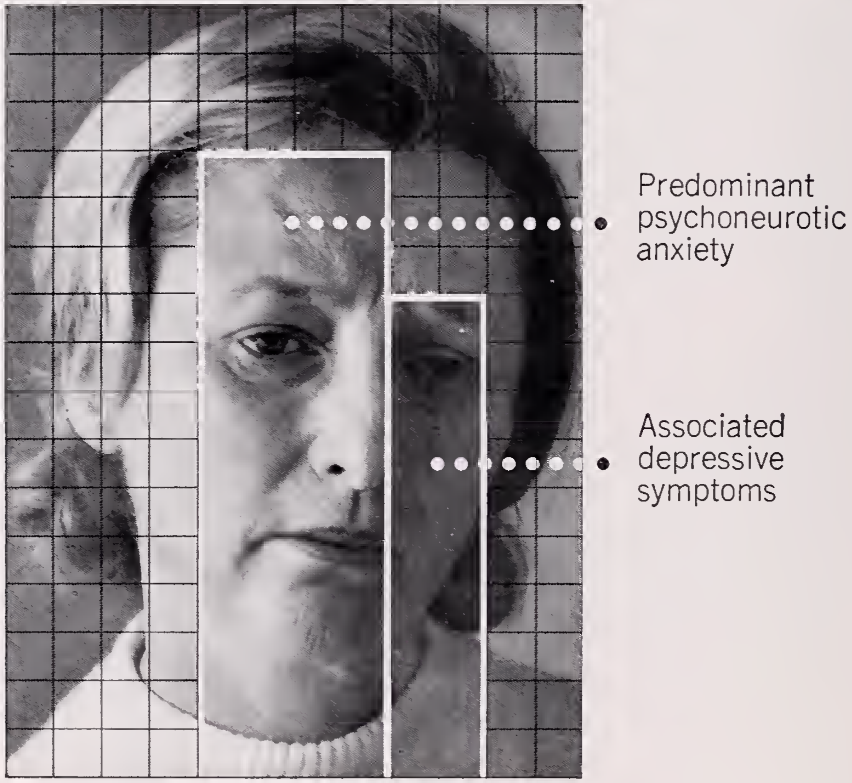
Both often


Predominant psychoneurotic anxiety
Associated depressive symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful

respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as the excessive anxiety is relieved, the depressive symptoms associated with it are also often relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.

Valium®
(diazepam) ⓘⓥ
2-mg, 5-mg, 10-mg scored tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

ROCHE
Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

The Nebraska Medical Journal

EDITOR-FRANK COLE, M.D., No. 13, Bishop Square
3901 So. 27th St., Lincoln 68502 Phone 471-5016

SEPTEMBER 1976 VOL. 61, NO. 9

EDITORIALS —

Don't be Technical ... 321
It's Singular, But It's Not Pleural ... 321
Our Time Sense ... 321
One Doctor Calling Another ... 322
Acronyms and References ... 322

ORIGINAL ARTICLES —

Extreme Hyperglycemia Without Ketosis in an Insulin Dependent Diabetic: A Variant of the Hyperglycemic Hyperosmolar Non-ketotic Diabetic Coma? ... 323
T. R. Chappell, B.S.
J. C. Shipp, M.D.
R. C. Rosenlof, M.D.

Vasodilators in Antihypertensive Therapy ... 327
H. Frederick Dalske, Ph.D.
Gerald L. Wolf, M.D., Ph.D.

Diagnosis of Congenital Heart Disease in the Neonate by Non-Invasive Methods, Part II ... 329
Philip J. Hofschire, M.D.
Alan D. Forker, M.D.
Paul K. Mooring, M.D.

Immunization Level Survey of Two-Year Old Children — 1975 ... 335
William R. Pack, PHA
Paul A. Stoesz, M.D.
Henry D. Smith, M.D., M.P.H.

Malpractice — What Is It?, Part I ... 339
Rose Fidelis Faithe, M.D., J.D.

Addison's Disease in Children: A Case Report ... 342
George D. Maragos, M.D., M.S.C.
M. Mehdi, M.D.

SPECIAL ARTICLE —

Fifty Years in Medicine ... 345
Nancy Catania, M.D.

DOWN MEMORY LANE ... 347

FEATURES —

President's Page ... 348
Welcome New Members ... 349
The Auxiliary ... 350

IN MEMORIAM ... 351
Dr. Henry Charles Hansen
Dr. Julius A. Johnson

BETWEEN CASES ... 351

NEBRASKA —

Picture Gallery ... 353
Our Medical Schools ... 354
State Organizations ... 12A

ALL THE STATES —

WashingtoNotes ... 355
Coming Meetings ... 357
National Organizations ... 10A

AROUND THE WORLD —

Books ... 358
The Letter Box ... 358
Medicinews ... 359

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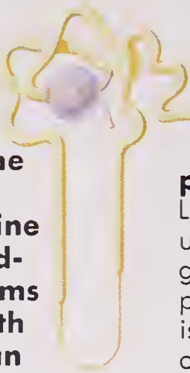
hen you control urine volume in your patients...

it's what's
not in the urine...
that makes
LASIX® (FUROSEMIDE)
logical long-term
diuretic therapy for
cardiac edema

(Please see last page of this advertisement for prescribing information.)



The Lasix® site of action is a distinctive advantage—for it results in fewer electrolytes in each liter of urine than with other commonly used diuretics.[1,2] That is why, if you control urine volume through individual dosage adjustment, you may face fewer problems with electrolyte disturbances.[3] As with any diuretic, electrolyte depletion can occur during therapy with furosemide. Careful clinical and laboratory observations are advisable.

The primary site of Lasix® action—at the loop of Henle—distinguishes Lasix from other commonly used diuretics. The action at this site enables Lasix to produce a dilute urine,[4] which may be the basis for its relative freedom from electrolyte disturbances (hypokalemia).[3] When the edematous patient has been stabilized, excessive diuresis can usually be avoided by simple dosage adjustment. And, through regulation of urine volume by this dosag adjustment, you can control electrolyte excretion. Careful medical supervision is required.

Wide dose-related effectiveness for precise control of diuretic response. The Lasix® effect is dose-related. A prompt diuresis usually ensues with a single dose of 20 to 80 mg, given preferably in the morning. Depending on the patient's response, a second dose may be administered 6 to 8 hours later. Clinical and laboratory observations are advisable when doses exceeding 80 mg/day are given for prolonged periods. When maintenance of the edema-free state is desired, dosage may be adjusted to as low as 20 mg.

(Please see the dosage and administration section on the last page of this advertisement.)

Highly effective/short acting. The effectiveness of Lasix® has been clearly established in hundreds of thousands of patients in a decade of clinical experience. Consequently, Lasix is the most selected diuretic agent today in the treatment of edemas associated with congestive heart failure

because fewer electrolytes get into each liter of urine than with other commonly used diuretics...

LASIX® (FUROSEMIDE)

the diuretic for both initial & maintenance therapy in cardiac edema

The onset of diuresis usually occurs within an our and is usually complete within 6 to 8 hours; hus, patient inconvenience is minimized.

Useful in patients with renal impair- nent and severely depressed renal func- ion. Unlike other commonly used diuretics, Lasix® an be useful in patients with renal impairment nd severely depressed renal function. Even in the resence of renal insufficiency with depressed lomerular filtration, acidosis, alkalosis or hypo- lbuminemia, Lasix has been found effective and vell tolerated.[5] If increasing azotemia and oliguria ccur during treatment of severe progressive renal lisease, the drug should be discontinued.

(See next page for prescribing information.)

References: 1. Peltola, P.: Furosemide (Lasix®) as a diuretic, *Acta Medica Scandinavica*, *177*:6, 1965. 2. Mudge, G.H., in Goodman, L.S. and Gilman, A. (eds.), The Pharmacological Basis of Therapeutics, 4th ed., 1970, p. 852. 3. Manner, R.J., Brechbill, D.O., and DeWitt, Karen: Prevalence of hypokalemia in diuretic therapy, *Clin. Med.* 79:19, November 1972. 4. Schrier, R.W., *et al.*: Effect of furosemide on free water excretion in edematous patients with hyponatremia, *Kidney Int.* 3:30, 1973. 5. Muth, R.G.: Diuretic response to furosemide in the presence of renal insufficiency, *J.A.M.A.* *195*:1066, March 1966.

the basic unit

LASIX® 40 mg tablets
(FUROSEMIDE)

unsurpassed effectiveness for prompt reduction of edema

the adjuster unit

LASIX® 20 mg tablets
(FUROSEMIDE)

convenient dosage adjustment for maintenance therapy

LASIX® 40 mg and 20 mg tablets.
(FUROSEMIDE)
logical long-term diuretic therapy for cardiac edema

A brief summary of the Prescribing Information for
Lasix® (furosemide) Tablets 20 mg and 40 mg

WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO_2 and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperuricemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering curare or its derivatives to patients undergoing therapy with Lasix (furosemide), and it is advisable to discontinue Lasix (furosemide) for one week prior to any elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticaria and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, or diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (with purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported; however, relationship to the drug has not been established with certainty: sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinary frequency.

Dosage and Administration
ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as a single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individually determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day in those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged periods, careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent as soon as Lasix (furosemide) is added to the regimen to prevent excessive drop in blood pressure. As the blood pressure falls under the potentiating effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infants and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white, round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information
Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD_{50} of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD_{50} ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD_{50} of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often became dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of the drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in rats and dogs. In a one-year study in rats, renal tubular degeneration occurred, with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed calcification and scarring of the renal parenchyma at all doses above 10 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 17 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused maternal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate fetal lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of the renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.

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EDITION 7/76

Pros and Cons of Outpatient Breast Biopsy — M. A. Lou et al (Martin Luther King, Jr, General Hosp, Los Angeles 90059) Arch Surg 111:668-670 (June) 1976.

A review of 130 breast biopsies performed on women during the past three years showed that 90 were performed on outpatients and 40 on inpatients. Of the 90 outpatient procedures, 61 were under local anesthesia and 29 under general. Only three outpatient biopsy specimens were malignant and required subsequent patient admission to the hospital for mastectomy at an interval of 9 to 14 days. In all three, the axillary nodes were uninvolved. In two, no residual tumor was found in the mastectomy specimen. The advantages of outpatient biopsy and the accumulating evidence that the interval between biopsy and mastectomy is harmless, suggest that the outpatient biopsy procedure should be expanded to include tumors suspected of malignancy.

Some Gross Observations of the Epididymides Following Vasectomy: Clinical Study — D. S. Pardanani et al (Dept of Surgery, G. S. Medical College, Parel, Bombay, India) Fertil Steril 27:267-270 (March) 1976.

The low pregnancy rates in wives of men with successful reversal of vasectomy by vas anastomosis have been attributed to immunologic changes or spermatogenetic changes following vasectomy. In 114 vasectomized men, 220 epididymides were grossly examined during vasovasostomy. Fullness, distention, turgidity, thickening, induration, and other gross changes of the epididymides, including the formation of cystic spermatic granuloma, or spermatocele, indicated inadequate removal of spermatozoa and testicular fluid from the sequestrated proximal seminal ducts and the epididymis. Further studies are necessary to determine whether the epididymal changes following vasectomy have any effect on sperm morphology and sperm physiology. The information obtained from these studies possibly may explain the poor pregnancy rates in the spouses of successfully vas-anastomosed patients.

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Bulwer-Lytton.

* * *

The eyes, like sentinels, hold the highest place in the body.

Cicero.

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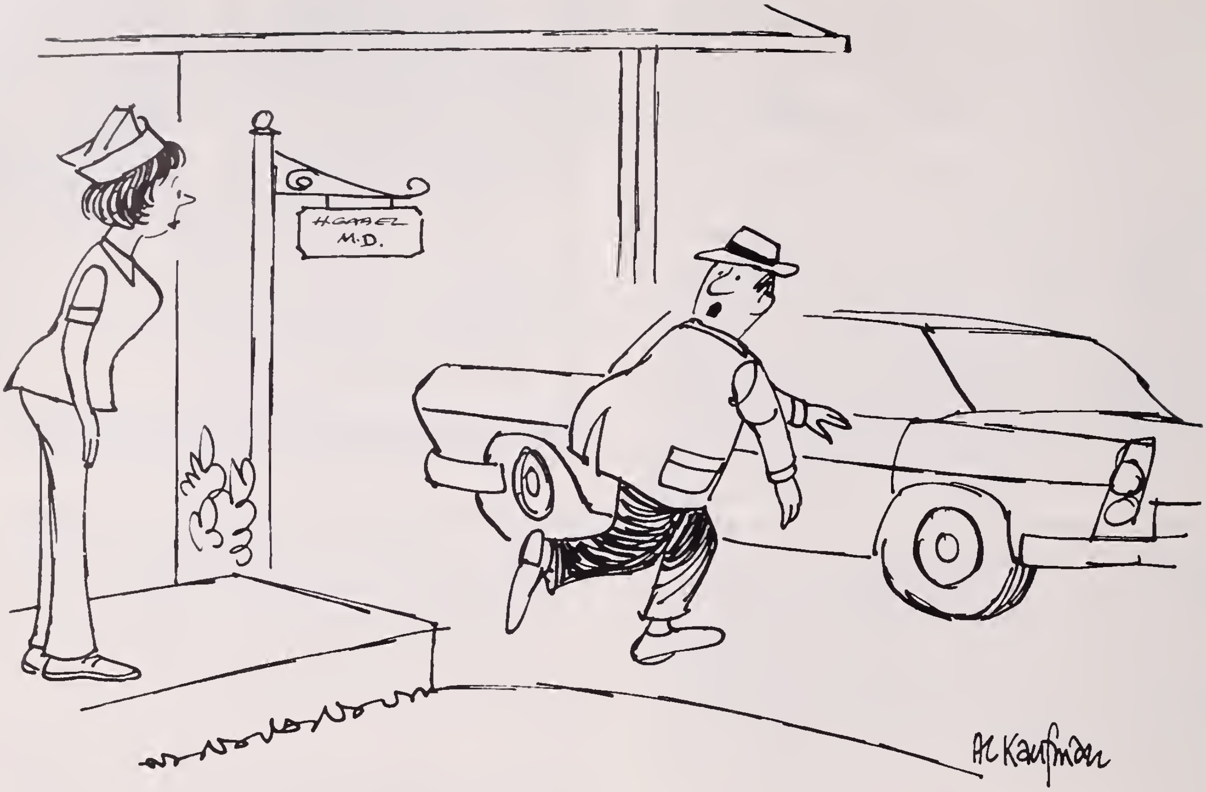

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Steroid-Binding Proteins in Carcinoma of Human Male Breast — E. B. Thompson et al (E. Perlin, National Naval Medical Center, Bethesda, MD 20014) Am J Clin Pathol 65:360-363 (March) 1976.

Receptor sites for a group of four steroid hormones were estimated by competitive binding assay of a biopsy specimen of carcinoma from a male breast. The results indicate that the tissue contained a significant number of binding sites for 17 β-estradiol, and probably for dihydrotestosterone and progesterone, but not for testosterone. These preliminary data suggest that, as in the female, certain mammary carcinomas in the male may be under the influence of steroid hormones. Correlation of such data with responses to therapy may help to establish a more rational approach to the treatment of carcinoma of the male breast.

Management of Acute Spine and Spinal Cord Injuries — H. Feuer (Wishard Memorial Hosp, Indianapolis 46202) Arch Surg 111:638-645 (June) 1976.

The modern, positive approach to treatment of injuries of the cervical spine and spinal cord has produced excellent long-term survival, but less progress has been made in reversal of the neurologic defect. Injuries to the spinal column are of four types: flexion-dislocation, hyperextension, vertical compression, and rotation. Those to the spinal cord also involve four categories: morphologic damage, hemorrhage and vascular damage, structural changes, and biochemical response. Experimental work has explored new adjuncts to conservative treatment, such as norepinephrine antagonists, other drugs, and hypothermia. These results, and those of surgery on the experimental lesions, have been hopeful, but not definitive. Controversy surrounds the surgical vs nonsurgical treatment of clinical spinal cord injury. Operation is indicated for roentgenographic evidence of bone fragments in the spinal canal, for worsening neurologic symptoms, and, possibly, if experimental evidence is to be followed, for surgical decompression in the very early minutes or hours after injury.

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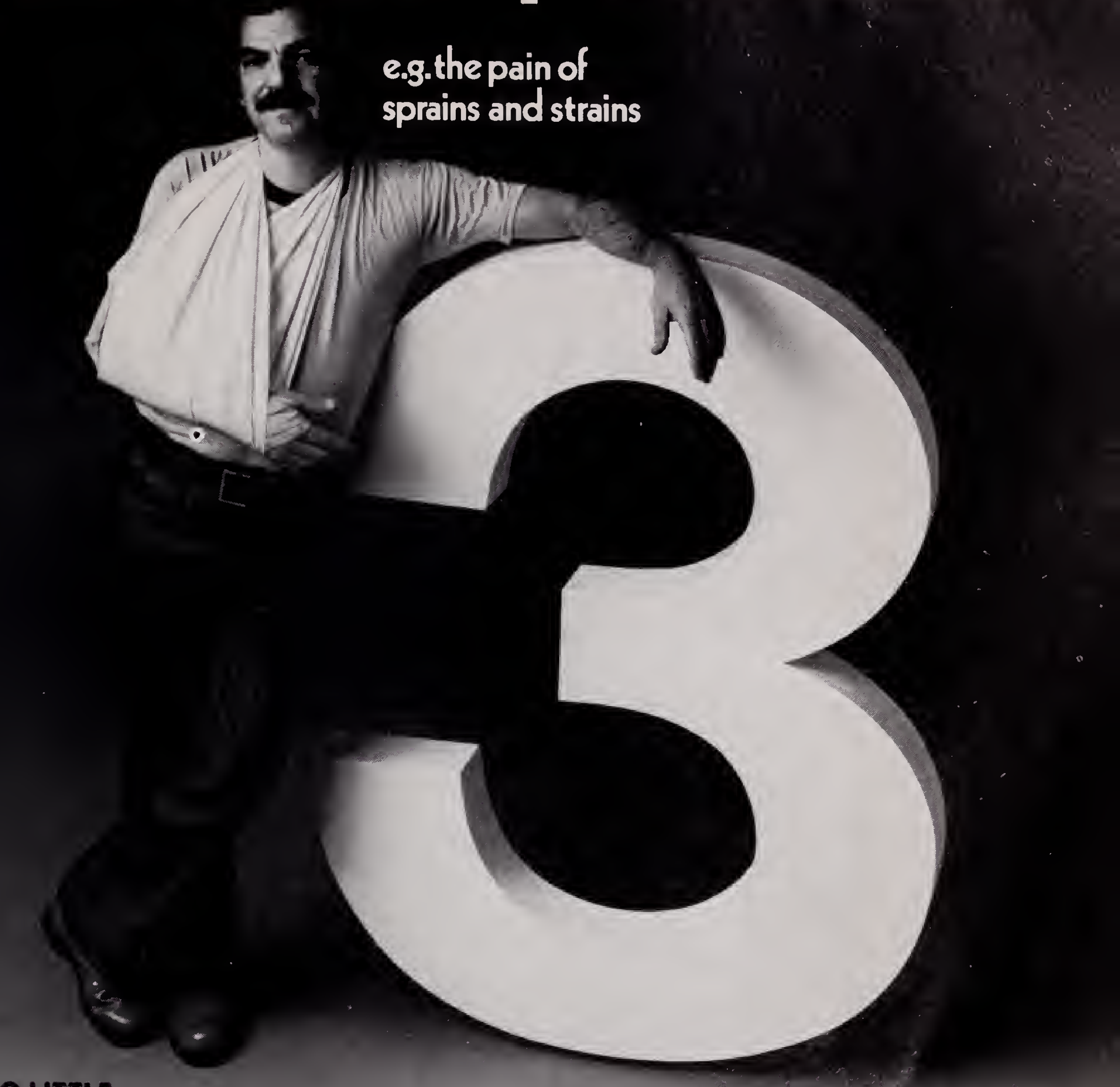
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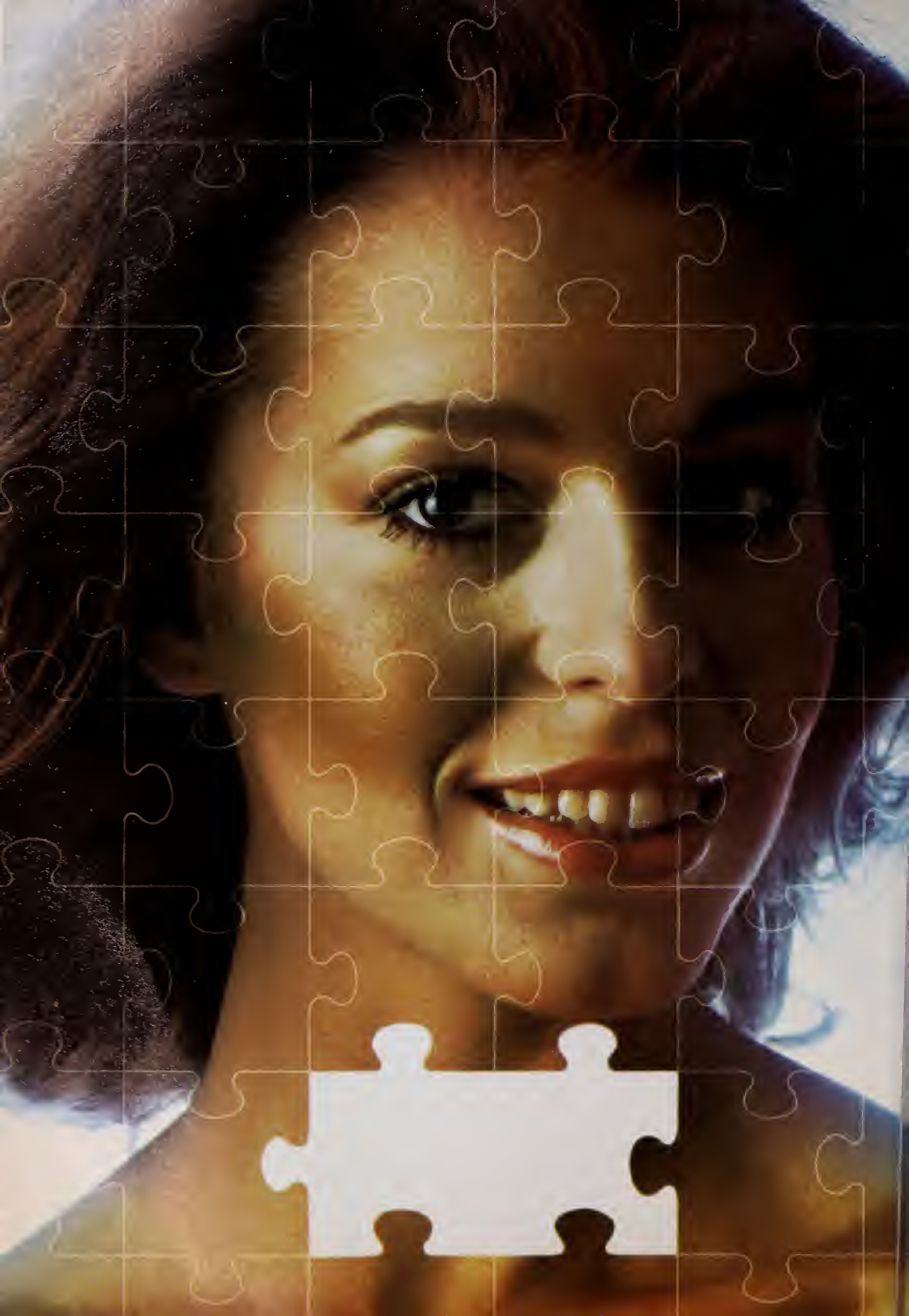

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1. Stock, J. M., Surks, M. I., and Oppenheimer, J. H. Replacement dosage of L-thyroxine in hypothyroidism. A re-evaluation. New Engl. J. Med. 290:529-33, 1974.

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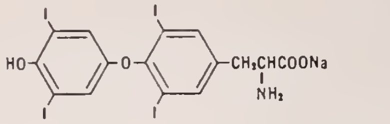

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Warnings: Patients with cardiovascular diseases warrant particularly close attention during the restoration of normal thyroid function by any thyroid drug. In such cases, low initial dosage increased slowly by small increments is indicated. Occasionally, the cardiovascular capacity of the patient is so compromised that the metabolic demands of the normal thyroid state cannot be met. Clinical judgment will then dictate either a less-than-complete restoration of thyroid status or reduction in thyroid dosage

Endocrine disorders such as diabetes mellitus, adrenal insufficiency (Addison's disease), hypopituitarism and diabetes insipidus are characterized by signs and symptoms which may be diminished in severity or obscured by hypothyroidism. SYNTHROID (sodium levothyroxine) therapy for such patients may aggravate the intensity of previously obscured symptoms and require appropriate adjustment of therapeutic measures directed at these concomitant disorders.

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Precautions: Overdosage with any thyroid drug may produce the signs and symptoms of thyrotoxicosis, but resistance to such factitious thyrotoxicosis is the general rule. With SYNTHROID (sodium levothyroxine) **Tablets,** the relatively slow onset of action minimizes the risk of overdose but close observation in the weeks following institution of a dosage regimen is advised. Treatment of thyroid hyperactivity induced by oral medication is confined to interruption of therapy for a week, followed by reinstitution of daily therapy at an appropriately reduced dosage.

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Dosage and administration: For most adults, a final dosage of 100 mcg (0.1 mg) to 200 mcg (0.2 mg) of SYNTHROID (sodium levothyroxine) **Tablets** daily will restore normal thyroid function and only occasionally will patients require larger doses. Failure to respond adequately to a daily oral intake of 400 mcg (0.4 mg) or more is rare and should prompt reconsideration of the diagnosis of hypothyroidism, special investigation of the patient in terms of malabsorption of L-thyroxine from the gastrointestinal tract or poor adherence to therapy.

The concomitant appearance of other diseases, especially cardiovascular diseases, usually dictates a replacement regimen with initial doses smaller than 100 mcg/day (0.1 mg).

In otherwise healthy adults with relatively recent onset of hypothyroidism, full replacement dose of 150 mcg (0.15 mg) or 200 mcg (0.2 mg) has been instituted immediately without untoward effect and with good therapeutic response. General experience, however, favors a more cautious approach in view of the possible presence of subclinical disorders of the cardiovascular system or endocrinopathies.

The age and general physical condition of the patient as well as the severity and duration of hypothyroid symptoms determine the starting dosage and the rate of incremental dosage increase leading to a final maintenance dosage. In the elderly patient with long standing disease, evidence of myxedematous infiltration and symptomatic, functional or electrocardiographic evidence of cardiovascular dysfunction, the starting dose may be as little as 25 mcg (0.025 mg) per day. Further incremental increases of 25 mcg (0.025 mg) per day may be instituted at three to four week intervals depending on patient response. Conversely, otherwise healthy adults may be started at higher daily dosage and raised to the full replacement dosage in two to three weeks. Clearly it is the physician's judgment of the severity of the disease and close observation of patient response which determines the rate of dosage titration.

Laboratory tests to monitor thyroid replacement therapy are of limited value. Although measurement of normal blood levels of thyroxine in patients on replacement regimens frequently coincides with the clinical impression of normal thyroid status, higher than normal levels on oral replacement of levothyroxine occasionally occur and should not be considered evidence of overdosage per se.

In all cases, clinical impression of the well-being of the patient takes precedence over laboratory determination in determining the appropriate individual dosage.

In infants and children, there is a great urgency to achieve full thyroid replacement because of the critical importance of thyroid hormone in sustaining growth and maturation. Despite the smaller body size, the dosage needed to sustain a full rate of growth, development and general thriving is higher in the child than in the adult, as much as 300 mcg (0.3 mg) to 400 mcg (0.4 mg) per day.

In myxedema coma or stupor, without concomitant severe heart disease, 200 to 500 mcg of SYNTHROID **Injection** may be administered intravenously as a solution containing 100 mcg/ml. Although the patient may show evidence of increased responsivity within six to eight hours, full therapeutic effect may not be evident until the following day. An additional 100 to 300 mcg or more may be given on the second day if evidence of significant and progressive improvement has not occurred. Like the oral dosage form, SYNTHROID **Injection** produces a predictable increase in the circulating level of hormone with a long half-time. This usually precludes the need for multiple injections but continued daily administration of lesser amounts intravenously should be maintained until the patient is fully capable of accepting a daily oral dose.

In the presence of concomitant heart disease, the sudden administration of such large doses of L-thyroxine intravenously is clearly not without its cardiovascular risks. Under such circumstances, intravenous therapy should not be undertaken without weighing the alternative risks of the myxedema coma and the cardiovascular disease. Clinical judgment in this situation may dictate smaller intravenous doses of levothyroxine.

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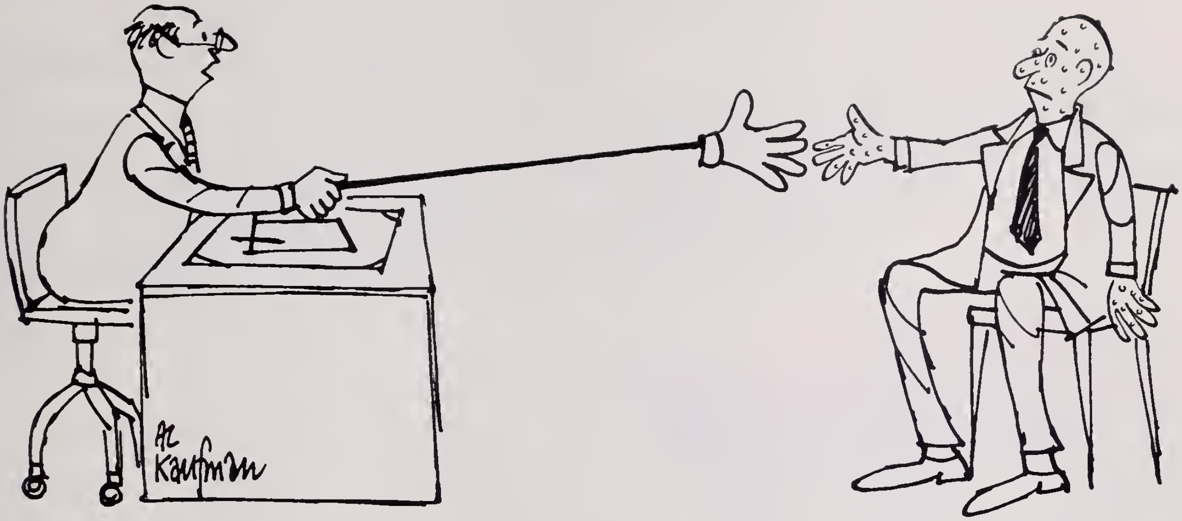
U.S. Pat. 2,889,363

January 1975



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Before prescribing, see complete prescribing information in SK&F literature or *PDR*. The following is a brief summary.

* **Warning**
This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, **check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently**—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

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▪ **Dosage for Vertigo***—The usual adult dosage for Antivert/25 is one tablet t.i.d.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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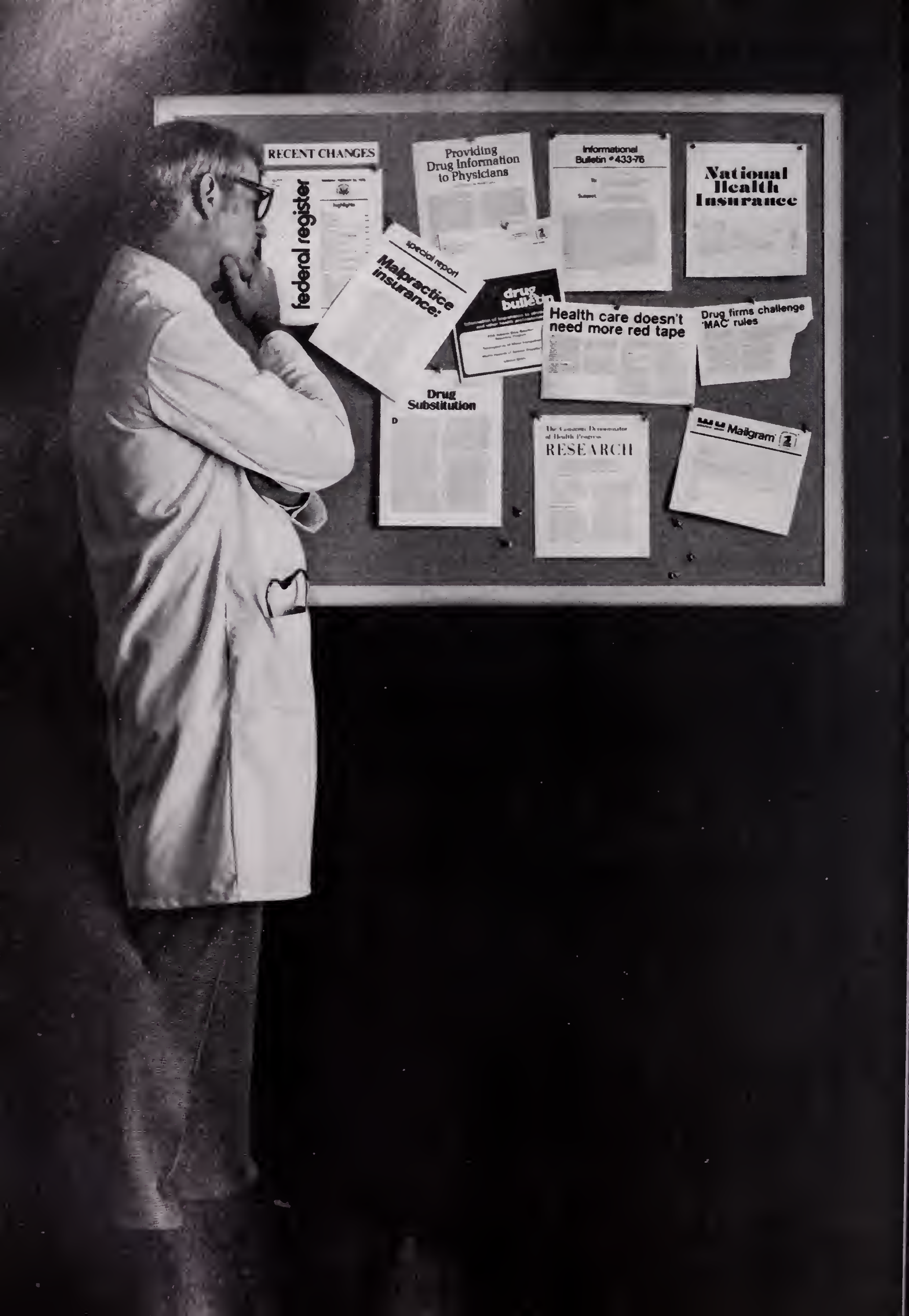
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THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent, generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than $1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.

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THE NEBRASKA MEDICAL JOURNAL

DON'T BE TECHNICAL

We avoid lay terms and invent a jargon of our own, and if medical words are largely Latin, it serves to impress our patients and lets us communicate with colleagues in other lands.

But let us go the other way and listen to the patient's idiom. Lay terms may be more Anglo-Saxon than Latin, but they are nonetheless descriptive and worthwhile. Can we not communicate better with those who crowd our offices and hospitals if we learn and if we use their everyday words?

Here is a small list of nontechnical names for parts of the body.

Crop, gizzard, hip-bone, gullet, lights (they're your lungs, they're light enough to float in water), ticker, collar-bone, craw, paunch and haunch, rumen, funny-bone, peepers, belly, gut, thigh-bone, pate, sweetbreads, windpipe, back-bone, and maw.

The patient says break when we say fracture, a dislocation is a bone out-of-place, microorganisms are germs and even bugs, and an injection is a shot; mouth may not be nontechnical, and tripe may only be something you eat. The patient says unconscious where we say comatose.

But what is the difference? Collar-bone and windpipe are as good as clavicle and trachea, and I suspect even better. The patient may speak of hurt and bleeding where we say trauma and hemorrhage, and what of it? Your words are as good as mine, let us say, high blood pressure is the same as hypertension. When you're cyanotic you're blue, and when you're jaundiced you're yellow.

Good English consists of short words, and communication of plain ones. But getting through to patients bars the door to fancy words when fancy words will not do what is needed. He has taken a turn for the worse is no substitute for he just died, and metastasis is a sad stand-in for spread and not even an honest euphemism.

Is a sarcoma a cancer? It is to the patient, and that is all that matters.

—F.C.

IT'S SINGULAR, BUT IT'S NOT PLEURAL

There are more than a few English words that seem to be plural but are not, and medicine has contributed its share.

See:

quadriceps
chilblains
glanders
mumps
lens
triceps
forceps
measles
biceps
scabies
yaws
herpes

There are others, like canities, and the pons, and glans and nares, and the blues and the lights (they're your lungs) and the heebie-jeebies and the whim-whams; and nonmedical ones like gallows and galluses, and kudos and politics and morals and physics, and spectacles, and hops as in beer, and dregs and lees.

Can you have one measle or just one mump, or even a single yaw, or a herpe, or a len? Two mumps, maybe, but not one, and of course there's no bicep. A nurse can't hand you a forcep, there's no such thing; try scissors, too, or shears.

You can't ask for one Kleenek, either. And you can't have a bad case of nerve, it has to be nerves. You can have burns and blisters and bedsores, and I suppose you could have one of each. But Job had boils, and they just about undid him.

There's trousers, too, and if you don't think that's plural, try leaving them home; you'll look singular.

—F.C.

OUR TIME SENSE

I can usually tell what time it is to within five minutes, and I have heard of a man who could get it by thirty seconds, but I wonder how we do this. Something in our brains must be clicking along and counting so that we can distinguish between one hour and two. *It just feels like two hours* does not explain; inside of us, we are counting, but counting what?

Many have used the pulse as a clock, and of all our biological rhythms, this is the only one obvious and accessible, and not under our control. But the subconscious mind has something better than the pulse to count. We are aware of it when the drummer misses a beat, and when the patient's pulse is irregular, but how?

Be assured that we are counting something, and that the process is not simple. When did this occur, we are asked, and we say O, about seven or eight years ago. We do not need to look it up. We are aware of the passage of time in years as well as minutes. The schoolboy waits anxiously for the recess bell he knows will ring, and the child at piano practice can tell when the hour is up. Both may underestimate, but they know they are guessing short.

It is not as easy to guess what time it is when you are awakened at night. When sleep is broken by the telephone bell or by a thunderclap, our ever-running clock does not work as well; whatever is doing the counting goes to sleep when we go to sleep. I may guess the time within five minutes during the day, but I will miss it by an hour and a half at night.

When the patient's pulse is fast, we do not need a clock to tell us. We know moderately fast from very fast, and we can usually put down the right number without consulting a watch. Seconds, minutes, hours, and years, we count them all without trying and without knowing, and we store these things in a reservoir we keep somewhere, and from which we draw when we need to.

—F.C.

ONE DOCTOR CALLING ANOTHER

When one doctor is calling another on the telephone, I think he should make the call himself. Only two things can motivate him to have his secretary make the call. One is his desire to save time, but this leaves the friend he has called with the need to wait until the caller comes to the phone. The second is, I do think, the caller's wanting to impress the one he is calling; the message is, I'm so busy I don't have time to make the call myself, and besides, I have a secretary.

If the one who is called has a secretary, things get very funny. The secretary who answers the call may say put *your* doctor on the line first, and the girl (no offense, libs, but they are girls) who made the call may say put *your* doctor on first.

The message the doctor-who-answers-the call gets is that the calling doctor does not know how to use the telephone, or that his discourtesy is intentional, or that the calling doctor wants instructions in manners.

Of course, all of this applies to nondoctors, too.

With or without secretarial help, I make all my calls myself. So do my nice friends.

—F.C.

ACRONYMS AND REFERENCES

I like eponyms and I do not mind acronyms. I am for a small number of references, but I reject bibliographies.

And in this connection, I abjure the practice of attaching 300 references to the tail-end of a manuscript, since a work cannot be thought of as original if it is preceded by hundreds of other workers in the field.

And finally, my New England hackles rise at the sight of a sprinkling of references to yourself at the end of your own article.

So I have called a meeting of a committee of (thus far) one, to be known as STORY, for the Society for The Outlawing of Referring to Yourself; or SPRY, meaning the Society for the Prevention of Referring to Yourself.

You may come up with better initials, like DRY, standing for Don't Refer to Yourself.

There should be a law, and there may already be one. Maybe, if the author were to pay a dollar for every reference, those 300-name lists would die aborning. And if each reference to himself cost him ten dollars, things would get even better.

Editors might get rich.

—F.C.

Extreme Hyperglycemia Without Ketosis in An Insulin Dependent Diabetic: A Variant Of the Hyperglycemic Hyperosmolar Non-ketotic Diabetic Coma?*

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Hyperglycemic hyperosmolar nonketotic diabetic coma was first described by Sament and Schwartz in 1957. It represents one end of a spectrum of syndromes secondary to reduced insulin activity and/or increased glucagon activity which range from only hyperglycemia to hyperglycemia with ketoacidosis.[1,2] In any patient, the nature of the metabolic disturbance depends on multiple factors such as the precipitating events, degree of diabetic control, occurrence of vomiting, length and degree of the osmotic diuresis and overall renal function. Thus, a patient may present with severe ketoacidosis on one occasion, but under different circumstances develop the hyperglycemic hyperosmolar nonketotic diabetic coma.[3] The diagnosis of this entity depends on the following laboratory findings: (a) glycosuria with little or no ketonuria (b) extreme hyperglycemia (average value 1096 mg/dl) (c) hyperosmolarity (average value 353 mOsm/1) and (d) no ketoacidosis.[1,4] The absence of severe ketonemia, and acidosis, allows for a protraction of illness before diagnosis that is not possible in diabetic ketoacidosis. The presence of acidosis should prompt investigation of other causes such as lactic acidosis secondary to hypoxia or injudicious use of phenformin. The clinical picture is dominated by central nervous system dysfunction and dehydration.[1,5]

Case Report

A 43 year old white female, insulin dependent, juvenile onset diabetic was seen on December 10, 1974 at 6:00 pm in the office because of nausea and vomiting for one week. Other symptoms included anorexia, diarrhea, progressive weakness and clouded sensorium. She denied symptoms of infection and had not noticed polyuria or polydipsia. Throughout the week, urine tests showed 3+ glycosuria, but no ketonuria, and she made no adjustment in her 12 units of Lente insulin each morning. She had taken insulin since the diagnosis of diabetes at age 19, and, throughout, had shown unusual sensitivity to small doses. Cortisone acetate was begun at age 24 in an attempt, largely unsuccessful, to prevent marked hypoglycemic swings; currently she was taking 10 mg. tid. She had been treated, repeatedly, for diabetic complications including diabetic retinopathy, peripheral neuropathy, atherosclerotic heart disease, and renal failure. Other problems included recurrent urinary tract infections, osteoporosis, and a history of a radical mastectomy in 1966 for adenocarcinoma of the left breast without evidence of recurrence. Her diet was restricted in sodium and hydrochlorthiazide was taken daily.

On examination, she was a thin, lethargic female who was oriented to time, place, and person. Her temperature was 37 degrees C. , pulse 82, respirations 16 and normal in character, and blood pressure was 140/86. Pulses were absent bilaterally in the lower extremities, and there was a right carotid bruit. Her lungs were clear, the abdomen was soft, and there was no costovertebral angle tenderness. Deep tendon reflexes were decreased and vibratory sensation was absent bilaterally in the lower extremities. Her skin was warm and dry with no areas of ulceration or infection noted, and there was no pedal edema.

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Blood glucose concentration when initially seen, was 918 mg/dl; urine showed 4+ glucose and was negative for ketones. The patient was hospitalized. Serum sodium was 116, potassium 3.3, chloride 72, and CO_2 content 25; pH was 7.35, creatinine 4.8, blood urea nitrogen 59 and serum osmolarity was 331 mOsm/1; serum ketones were negative. White blood count was 9,700/mm^3 (79% seg), hemoglobin 10.5 gm/dl, and the hematocrit 32%. A clean catch urinalysis showed 8-10 WBC/hpf, 4+ bacteria (later identified as E. Coli sensitive to nalidixic acid), 4+ glucose and no ketones. A chest x-ray and electrocardiogram were noncontributory. Serum cortisol concentrations (while continuing cortisone acetate) were 4.5 at 8:00 am and 23.9 at 4:00 pm.

Saline (0.45%) was infused intravenously, and after urine output was established, KCl (20 mEq/1) was added. A repeat blood glucose was 1050 mg/dl. 10 units of regular insulin was given intramuscularly at midnight. At 2:30 am the blood glucose was 800 mg/dl and on the following morning, 6 hours later, the blood glucose was 357 mg/dl. At that time serum osmolarity was 297 mOsm/1 and serum ketones were negative. Her sensorium had cleared and vital signs remained stable. The remainder of her hospitalization was uneventful except that electrolyte balance and diabetic control were difficult to maintain. At discharge, her morning Lente insulin had been increased to 17 units.

Discussion

The typical patient (two thirds of cases) with hyperglycemic hyperosmolar nonketotic diabetic coma is one with known or latent adult onset diabetes mellitus who is exposed to a continuous diabetogenic stress. Subsequently, there is beta cell secretory exhaustion and that amount of insulin produced is insufficient to prevent persistent hyperglycemia.[1,4] High plasma glucagon concentrations have recently been reported[6] suggesting a second cause of hyperglycemia. The kidney tubular maximum for glucose (TmG) is exceeded and osmotic diuresis ensues, the duration of which determines the degree of dehydration and electrolyte imbalance. The osmotic loss of water is greater than the loss of electrolytes resulting, eventually, in hypovolemic, hypertonic dehydration. Patients thus present with symptoms ranging from thirst and decreased skin turgor to coma and shock.[1,5] Some of the factors associated with this entity in both diabetic and nondiabetic patients are listed in Table 1.

The occurrence of hyperglucagonemia without ketoacidosis tends to minimize glucagon's role, in view of its potent lipolytic activity, in the genesis of ketone bodies.[6] The absence of ketone body formation is thought to be due to a dissociation of the effects of insulin on fat and carbohydrate metabolism. Zierler and Rabinowitz have shown that the amount of insulin necessary to promote glucose transport is ten times that which inhibits fat mobilization.[7] Thus, at low plasma insulin concentrations comparable to those found in the nonketotic state,[8] insulin has no effect on glucose uptake by cells, but apparently does inhibit the release of free fatty acids from adipose tissue and thus limits hepatic ketogenesis. Antiketogenic hepatic factors, altered biological

TABLE 1

Some Factors Associated with the hyperglycemic hyperosmolar nonketotic diabetic coma (1-11)

1. Infection
2. Medications:
    a. Adrenocorticosteroids
    b. Diuretics:
        1. Thiazides
        2. Furosemide
    c. Diazoxide
    d. Dilantin
    e. Immunosuppressive therapy
3. Illness:
    a. Uremia
    b. Gastroenteritis
    c. Pancreatitis
    d. Thyrotoxicosis
4. Surgery
5. Dialysis
6. Severe Burns

activity of insulin in the liver and decreased levels of lipolytic hormones (i.e. ACTH, HGH) may also be operative.[5]

The term coma is used loosely to describe alteration of central nervous system function which ranges from clouded sensorium to frank coma.[2,5] The impression of a cerebral vascular accident at the time of initial presentation is not unusual. This misdiagnosis is suggested in the absence of known diabetes by the presenting neurological signs and typical age (average patient is over 60).[1,9] The precise pathogenesis of the central nervous system dysfunction has not been elucidated, but anoxia, severe hyperglycemia, dehydration and hyperosmolarity due to hypernatremia, intracellular accumulation or sorbitol, and formation of "idiogenic osmoles" have all been implicated by various authors.[1,9]

Treatment is aimed at: 1. correcting the fluid and electrolyte balance 2. gradual reduction of the hyperglycemia 3. identification of precipitating events and 4. patient education to prevent recurrence.

Most experts agree that hypotonic saline is the intravenous fluid of choice for patients not in shock at the time of presentation.[1-4] Close attention should be paid to serum potassium concentration which is usually within normal limits compared to the hyperkalemia often seen in ketoacidosis; precipitous declines in serum potassium may occur early in therapy.[1,5] Our recommendation for fluid therapy is intravenous saline (0.45%) with added potassium chloride once adequate renal function is established.

The hyperglycemia in these patients is unusually sensitive to insulin[1,5] so that the initial administration of low doses of insulin is recommended. Before sodium losses are repaired, the hyperglycemia is responsible for obligating a significant amount of plasma volume so that rapid transport of glucose intracellularly may lead to hypotension. Alberti[10] has shown that a smooth return of the blood glucose to normal is achieved if insulin is supplied at a regular rate in amounts which avoid excessive plasma concentrations. Intramuscular insulin has a half life in muscle of about two hours. Relatively constant concentrations of serum insulin can be achieved with hourly IM injections of regular insulin. Small doses reduce the potential hypoglycemic hazard from large depots of insulin. To ensure that adequate amounts of insulin reach target organs and that the IM insulin can diffuse into the circulation from the site of injection, intravenous fluid replacement is necessary. We recommend treatment of the hyperglycemic hyperosmolar nonketotic diabetic coma with 5-10 units of regular insulin IM every hour until the blood glucose reaches 300 mg/dl.

Blood glucose determinations should be made two hours after the first injection and later as necessary, usually at 4-5 hours. If the blood glucose has not decreased, larger amounts of insulin can be given. Most diabetic patients eventually return to their previous state of diabetic control and management.[1]

Mortality in the hyperglycemic hyperosmolar nonketotic diabetic coma is estimated to be 40% to 70%,[4] considerably higher than the mortality associated with diabetic ketoacidosis even in patients of comparable age.[9] This is probably due to delayed diagnosis, associated severe precipitating illness and improper treatment.[1]

This patient, who presented with clinical and laboratory findings compatible with the hyperglycemic hyperosmolar nonketotic diabetic coma was unusual for several reasons. First, she was significantly hyponatremic which was unexpected with an osmotic diuresis. It was difficult to separate clearly, the presenting symptoms on the basis of this entity or uremia. Uremia is a well known cause of carbohydrate intolerance presumably due to peripheral insulin resistance and is a reported cause of nonketotic diabetic coma[8] (see Table 1). With renal impairment, osmotic diuresis may be impaired so that the hyperglycemia induced osmotic shift of water into the vascular compartment causes dilutional hyponatremia. Her prior sodium restriction, diarrhea and diuretics contributed to the hyponatremia. Secondly, her plasma cortisol levels showed a reversal of the normal diurnal variation. Steroids are associated with peripheral insulin resistance and increased gluconeogenesis leading to deterioration of carbohydrate tolerance.[2]

Third, she was a juvenile diabetic taking exogenous insulin. Other instances in which the hyperglycemic hyperosmolar nonketotic diabetic coma has occurred in juvenile diabetics have been reported.[3, 5]

Summary

A patient is described with laboratory findings consistent with the hyperglycemic hyperosmolar nonketotic diabetic coma. The fact that she was an insulin dependent diabetic was unusual. This entity is a complication in the management of seriously ill patients, particularly both known and unknown diabetics. Diagnosis depends on the following laboratory findings: (a) glycosuria with little or no ketonuria (b) extreme hyperglycemia (c) hyperosmolarity and (d) no ketoacidosis. The clinical picture is dominated by central nervous system dysfunction and dehydration. Mortality is estimated to be 40-70%. Recommended therapy is both correction of fluid and electrolyte balance and gradual reduction of the hyperglycemia with low doses of intramuscular regular insulin; precipitating factors should be identified and, after recovery, patient education is indicated to prevent recurrence.

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Vasodilators in Antihypertensive Therapy*

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Hydralazine

UNTIL recently the use of hydralazine has been limited by a high incidence of disturbing side effects. When combined with a sympatholytic agent, however, hydralazine becomes an important antihypertensive agent for the treatment of moderate to severe hypertension. Propranolol has been especially useful in combination with hydralazine.

The hypotensive effect of hydralazine is attributed almost entirely to its direct action on arteriolar smooth muscle, causing a resultant drop in total peripheral resistance. Since the major action is directly on the vascular smooth muscle cell and not on neurohumoral transmission, sympathetic reflex mechanisms remain intact and responsive to any fall in blood pressure. Thus, the fall in total peripheral resistance induced by hydralazine is partially countered by cardiac stimulation involving increases in heart rate, stroke volume and cardiac output. The chronotropic and inotropic effects of hydralazine increase cardiac work and oxygen consumption and, if coronary perfusion pressure is decreased, may precipitate angina in patients with coronary artery disease.

Side effects arising from the reflex cardiac stimulation are the major drawbacks in the use of hydralazine. Palpitations, tachycardia, angina, or EKG signs of myocardial ischemia or infarction may occur. Headache is a common early side effect, as are anorexia, nausea, vomiting, and diarrhea. All these symptoms may disappear during chronic treatment, but tend to reappear with increases in dose. Postural hypotension is rare, since the homeostatic reflexes are retained. A potentially serious toxic reaction to chronic hydralazine therapy is the development of a syndrome closely resembling disseminated lupus. The incidence of this reaction may approach 20% of patients on regimens of greater than 400 mg/day, but it is rare when daily dosage is kept under 200 mg. The syndrome is reversible when hydralazine is discontinued, although full remissions may not occur for years.

Hydralazine is well absorbed from the gastrointestinal tract. Due to rapid metabolism and excretion, doses should be given 3-4 times per day. Hydralazine should always be combined with a diuretic to prevent sodium and water retention, and is usually added to a pre-existing regimen in patients not adequately controlled by thiazides plus a sympatholytic agent. Reserpine may be used to counter the cardiac stimulation produced by hydralazine, but a more effective choice is guanethidine or propranolol. Such regimens provide synergistic antihypertensive effects with a reduction in toxic side reactions. Like alpha methyldopa, hydralazine maintains renal blood flow and glomerular filtration rate and may be of greater benefit in hypertension complicated by renal dysfunction. A parenteral form of hydralazine is available for use in antihypertensive emergencies with an onset of action of about 15 minutes.

When using hydralazine in triple therapy, the sequence in which each drug is added to the regimen is important. Frist, start with the diuretic — thiazides at full dose with normal renal function or appropriate doses of loop diuretics for patients with impaired renal function. Second, begin the sympatholytic agent and titrate this dose until reflex postural tachycardia is blocked. If the hypertension persists, then add hydralazine and increment its dose until blood pressure control is achieved or up to the dosage limit.

Our prescription survey revealed that hydralazine prescriptions, alone or in combination, accounted for less than 1% of all antihypertensives prescribed. International usage is closer to 10% of antihypertensives.

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Diazoxide

Diazoxide is a thiazide congener marketed exclusively for use in hypertensive crises. Like hydralazine, diazoxide does not interfere with autonomic neurotransmission, but produces its effect by directly relaxing arteriolar smooth muscle. This action is accompanied by a reflex rise in cardiac output and tachycardia. Blood flow to all vascular beds is usually maintained, and postural hypotension does not occur. Myocardial or cerebral ischemia may occur, however, in patients with severe arteriosclerosis.

Diazoxide is given in a bolus intravenous dose of 300 mg or 5 mg/kg. Because a great percentage of the drug is rapidly bound by plasma proteins the full dose must be given within 20 seconds for optimal effect. Maximum reduction in blood pressure occurs within 3-5 minutes followed by a gradual rise to pretreatment levels in 4-12 hours; a second dose may be given within 30 minutes if the initial response is not satisfactory. Patients should remain recumbent and be closely monitored for the first 15 minutes after each dose. Subsequent doses may be given at intervals determined by the hypotensive response, although oral antihypertensive medication should be initiated with the first dose to minimize the need for continued intravenous injections.

Diazoxide causes hyperglycemia and hyperuricemia, but neither is serious during the usual brief course of therapy unless diabetes or renal insufficiency are present. Marked sodium and water retention are a normal consequence of diazoxide use, but can be effectively countered by administering furosemide or ethacrynic acid (*not* a thiazide) intravenously 30 minutes prior to giving diazoxide. Diazoxide crosses the placenta, and may also interrupt labor if given during hypertensive crisis due to eclampsia. Uterine contractions can be reestablished with oxytocin.

Nitroprusside

Sodium nitroprusside is the most rapidly acting and consistently effective agent presently available for managing acute hypertensive crises. Unfortunately, unfounded fears of cyanide toxicity and the time-consuming process necessary to prepare the drug immediately before use have worked against its acceptance as a valuable hypotensive agent. Recently, however, a commercial lyophilized form requiring much less preparation time has been introduced (NIPRIDE, Roche).

Unlike hydralazine and diazoxide, nitroprusside directly relaxes *both* arteriolar and venular smooth muscle. Thus, its hypotensive effect results from the combination of decreased peripheral resistance and a diminished cardiac output. Reflex tachycardia occurs in most patients. Renal blood flow is usually maintained, but cerebral and coronary insufficiency may occur.

Nitroprusside must be given by infusion after dilution in 5% dextrose. The effective dose is highly variable, ranging from 0.5 — 8 ug/kg/min. Nitroprusside's onset of action is almost instantaneous; blood pressure may be maintained at almost any level by appropriate adjustment of the infusion rate. Blood pressure returns to pretreatment level within minutes after stopping the infusion; thus, continuous monitoring is mandatory throughout the infusion period. Control of blood pressure at stable levels can be maintained for days through the use of an infusion pump; tolerance to the effects of nitroprusside is extremely rare.

Most of the side effects occurring during nitroprusside therapy can be related to a too rapid fall in blood pressure; careful supervision of the infusion rate generally results in asymptomatic treatment. Cyanide ions released during therapy are rapidly converted to thiocyanate in the body and harmlessly excreted. If nitroprusside is infused at high rates or for longer than 72 hours, serum thiocyanate levels should be monitored and the infusion stopped if the level exceeds 10 mg%.

Nitroprusside should be used with caution in hypothyroidism, since thiocyanate inhibits uptake and binding of iodine, and in renal insufficiency, owing to diminished thiocyanate excretion. As with diazoxide, oral antihypertensive medication should be started concomitant with nitroprusside use.

Diagnosis of Congenital Heart Disease in The Neonate by Non-Invasive Methods*

PART II

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Although echocardiography was initiated as a non-invasive means of studying adult heart disease, its use has rapidly spread to the pediatric age group. Presently it serves as an accurate, rapid, and safe screening and diagnostic method in the critically ill neonate. It is particularly helpful in differentiating primary heart disease from lung disease in the cyanotic infant. This paper will review the most common congenital cardiac defects presenting in the neonate and the echocardiographic findings.

Although a complete review of ultrasound is beyond the scope of this paper, a few basic concepts are necessary. Ultrasound is sound with frequency above 20,000 cycles per second. This normally is beyond the audible range. It can be directed in a beam and follows the law of reflection and refraction. The degree of reflection is dependent upon the media it encounters. Thus two interfaces with different accoustic impedances will reflect varying degrees of sound. Ultrasound in the heart meets several different interfaces, i.e. lung, blood, bone, and muscle, each of which reflect different amounts of sound. Rapidly emitted sound waves from a transducer are then directed at an object and the reflected sounds return to the source. These sounds are then displaced on a cathode ray tube or oscilloscope.

Standard techniques of recording are necessary for proper orientation to the heart. These have been previously published by Solinger and Feigenbaum and can be seen in figure 1.

The echograms were obtained with an Ekoline Ultrasonoscope using a 3.5 mhz non-focused transducer. The echograms were then recorded on a Honeywell strip chart recorder.

Echocardiogram recording in the neonate poses less technical problems than in the adult. Because of the smaller chest diameter and less dense ribs and sternum, normally all the valves and great vessels can be recorded. The normal echogram and the schematic representation is seen in figure 2.

Not all congenital heart disease can be diagnosed by echocardiography. Left sided

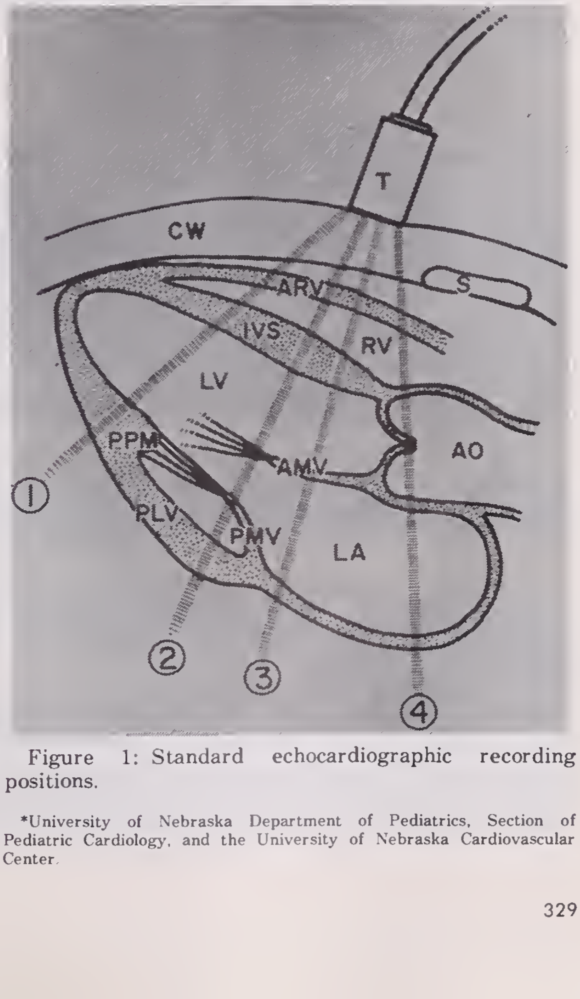

Figure 1: Standard echocardiographic recording positions.

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obstructive lesions, transposition of the great vessels, tetralogy of Fallot, and hypoplastic right heart are readily appreciated by echocardiograms, however, and cause a large percentage of heart disease seen in the infant.

1. Transposition of the Great Vessels

TGV is the most commonly observed cyanotic heart defect seen in the neonate. The anatomical derrangement consists of an aorta arising anteriorly from the anatomic right ventricle and a posteriorly located pulmonary artery ascending from the anatomic left ventricle (fig. 3a). Systemic venous return is then ejected back into the systemic circuit without benefit of pulmonary oxygenation. The pulmonary blood flow recycles through the lungs, left atrium, left ventricle, and pulmonary artery. Clinically these infants present with cyanosis and frequently heart failure in the first few weeks of life. The degree of cyanosis is dependent upon an associated ventricular septal defect or pulmonary stenosis and the amount of intra-atrial mixing.

The echogram findings relate to the position of the aorta and the pulmonary artery. (Fig. 3B) Medial rotation of the transducer will normally record a posteriorly located great vessel, the aorta, whereas lateral rotation of the transducer will transect an anterior great vessel, the pulmonary artery. (Fig. 3B, position 1) TGV produces the opposite findings. Thus medial

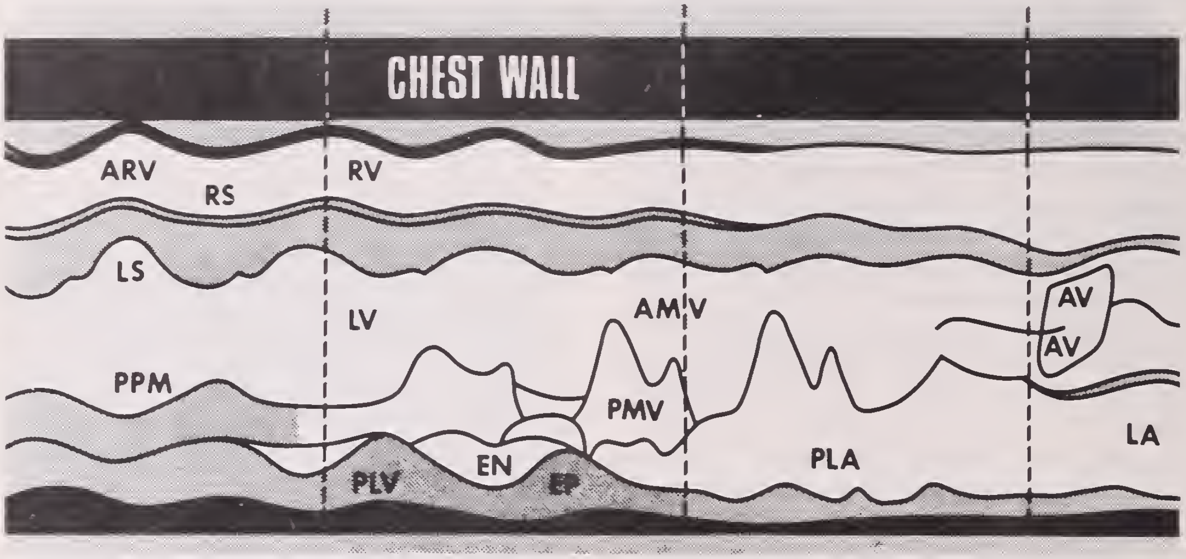

Figure 2A: Schematic representation of a normal echocardiogram scan.

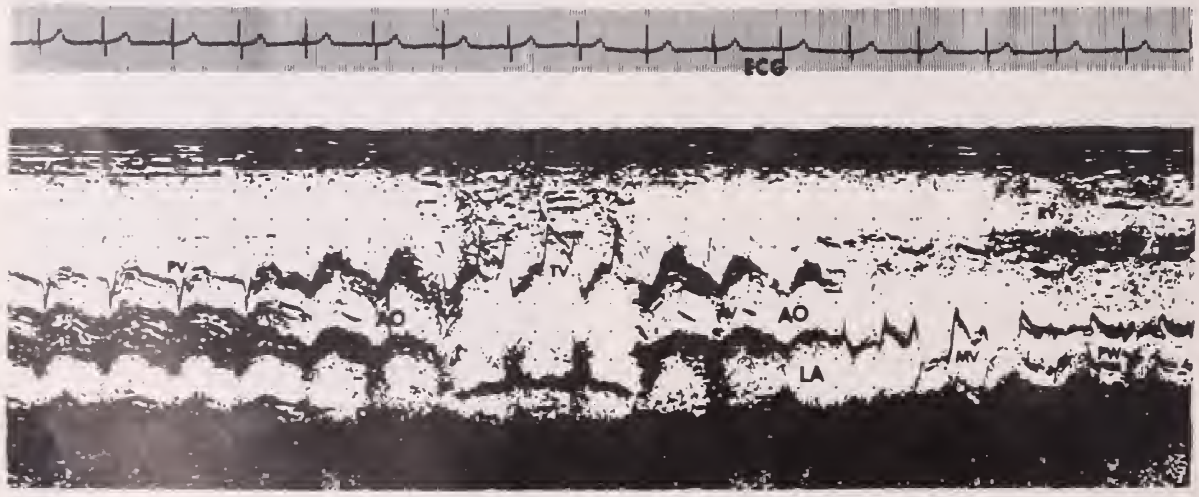

Figure 2B: Echocardiogram of a normal heart.

rotation will present an anteriorly arising aorta and lateral rotation will record a posteriorly arising pulmonary artery. (Fig. 3B, position 2)

The simultaneous recording of both great vessels has previously been reported as diagnostic of TGV. We have found this with TGV but have also noted it occasionally in the normal infant.

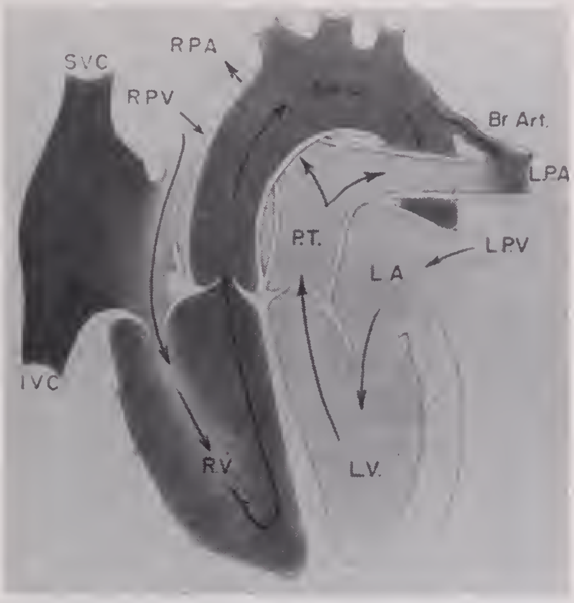

Figure 3A: Schematic representation of transposition of the great vessels.

2. Tetralogy of Fallot

Infundibular pulmonary stenosis, ventricular septal defect, right ventricular hypertrophy, and an overriding aorta are recognized as tetralogy of Fallot. The clinical picture is that of cyanosis with a systolic ejection murmur, right ventricular hypertrophy by electrocardiogram, and decreased pulmonary blood flow on chest roentgenogram (fig. 4a & b). The echogram reveals a large right ventricular chamber with a thickened anterior wall and a great vessel which actually overrides the interventricular septum. There is a smaller anteriorly arising great vessel (the pulmonary artery) with valve cusps present. As seen in the normal, there is continuity between the posterior aortic wall and the anterior leaflet of the mitral valve. This continuity is often the only differentiating criterion in distinguishing tetralogy from DORV where there is no such continuity. The presence of one large vessel in association with a smaller vessel with valve cusps will exclude truncus arteriosus.

3. Left Sided Obstructive Lesions

Obstructive left sided lesions which present in the neonate period include hypoplastic left heart syndrome, aortic stenosis, and coarctation of the aorta.

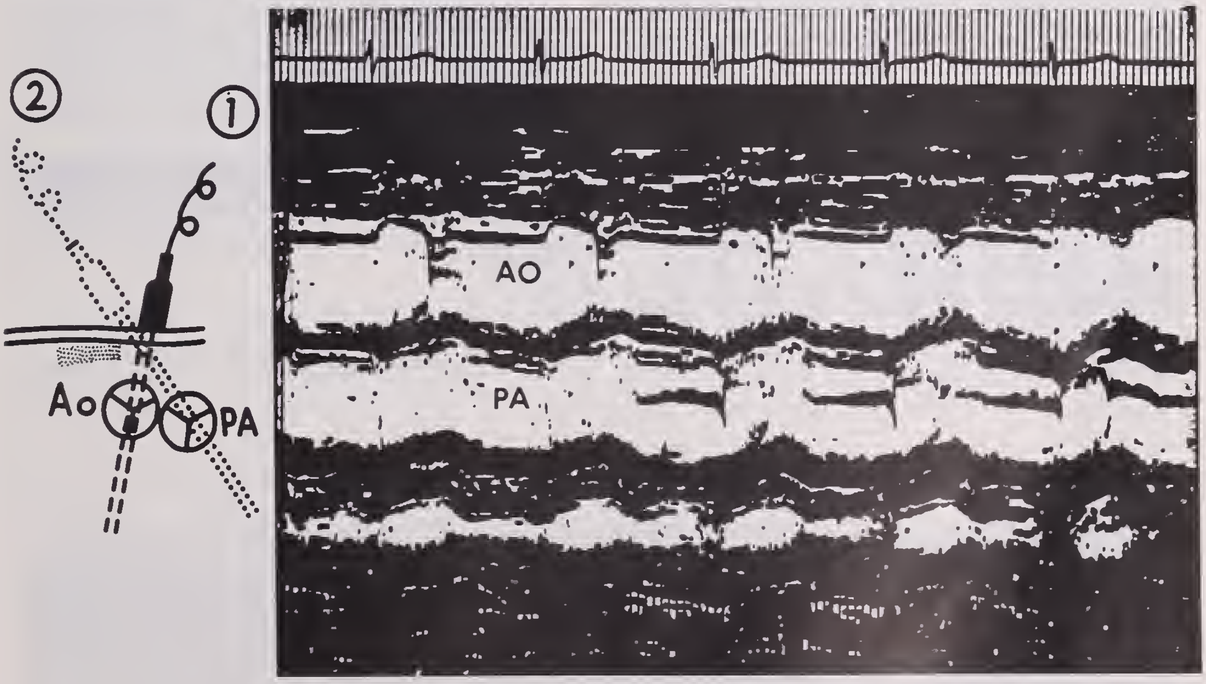

Figure 3B: Echocardiogram of transposition of the great vessels with variation of the transducer position and great vessels.

Clinically they present with signs of congestive heart failure. Cardiomegaly and pulmonary venous congestion are present on roentgenogram. The electrocardiogram with a pattern of right ventricular hypertrophy reflects the absence of significant left sided vector forces and the pulmonary hypertension usually present.

The anatomy of the hypoplastic left heart syndrome is a hypoplasia of the left ventricle with or without mitral atresia (fig. 5a & b). Usually there is associated aortic atresia or hypoplasia. The echocardiogram in hypoplastic left heart syndrome shows a rudimentary left ventricle with a distorted or even absent mitral valve. Either an abnormally small aorta or no aorta is recorded. Attempts to record a normal mitral echo should be made from all recording positions. Although survival time with hypoplastic heart may vary, no surgery is currently available and the present mortality rate is 100%. Thus aggressive catheterization and management can be obviated by the echocardiogram. Diagnostic accuracy with this diagnosis is virtually 100%.

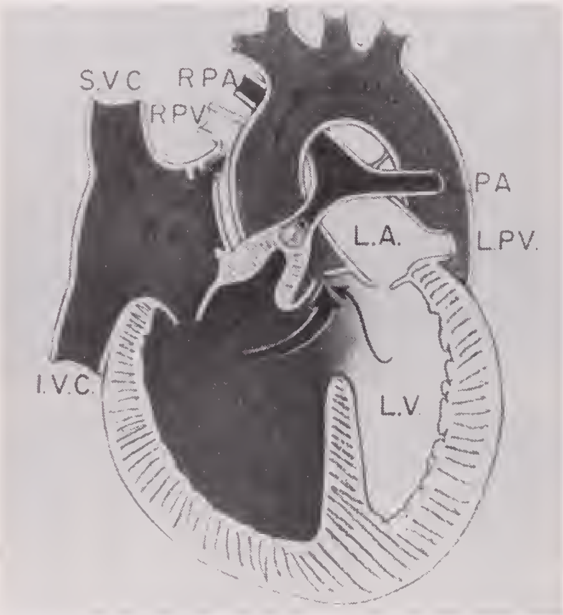

Figure 4A: Schematic representation of tetralogy of Fallot.

Critical aortic stenosis in the neonate is usually the result of a unicuspid, cartilaginous aortic valve. The left ventricle may be hypoplastic and have poor contractility. This diagnosis is appreciated by echogram as a normal aortic root size with incomplete valve opening and thickened cusps. Abnormal left ventricular wall motion may also be noted. Because the echocardiogram may be normal with this condition, angiography and pressure measurements are still usually required for accurate diagnosis and determination of need for early surgery.

At present there is no way to diagnose coarctation of the aorta by echogram.

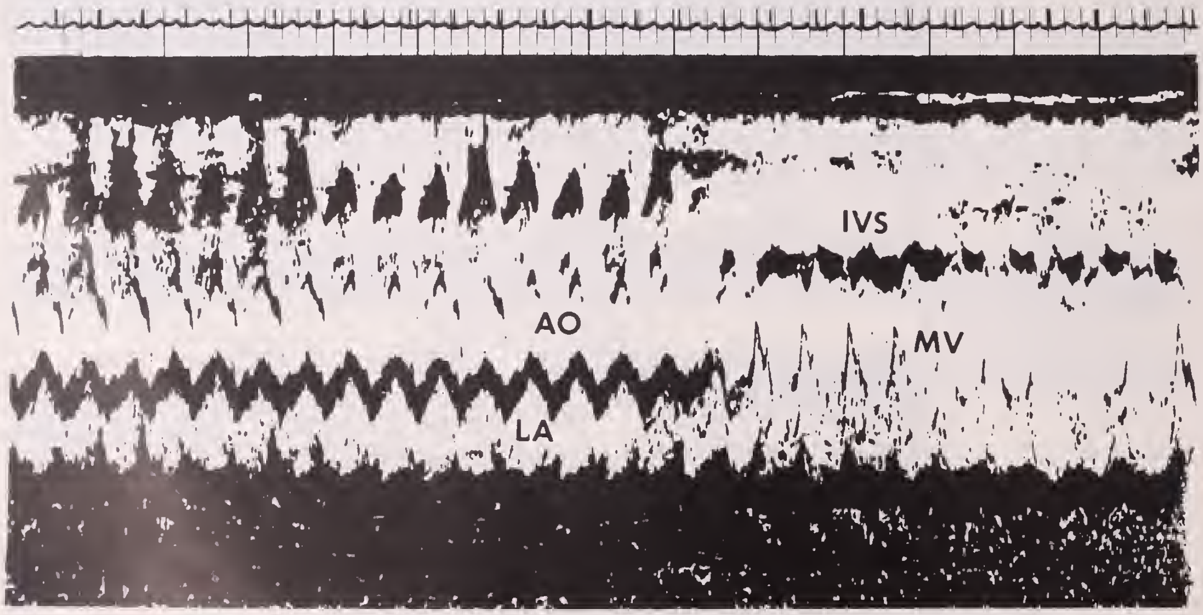

Figure 4B: Echocardiogram of tetralogy of Fallot with overriding aorta.

Overlying lung tissue obstructs the view of the coarcted segment by the transducer.

4. Hypoplastic Right Heart

The presence of a cyanotic infant with decreased pulmonary blood flow on chest roentgenogram and decreased right ventricular voltage by electrocardiogram should alert the physician to the hypoplastic right heart syndrome.

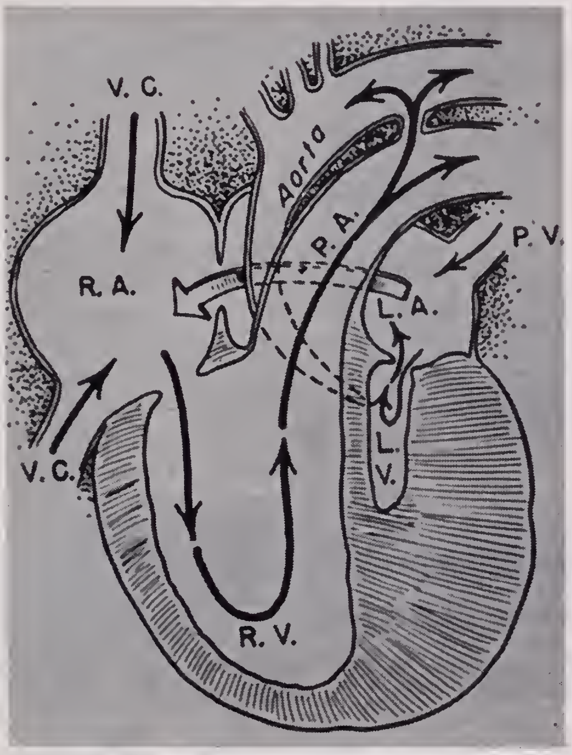

Figure 5A: Schematic representation of hypoplastic left heart syndrome.

The anatomy of this defect consists of a small or rudimentary right ventricle with or without atresia of the tricuspid valve (fig. 6a & b). The echocardiogram demonstrates a decreased diameter of the right ventricle and a malformed or absent tricuspid valve echo. The pulmonary artery is small and both anatomically and by echocardiogram.

Discussion

The differential diagnosis of the ill neonate with suspected congenital heart disease must include other organ systems as well. Sepsis, hypoglycemia, and central nervous system disorders may all mimic congenital heart disease. Most commonly the respiratory distress syndrome presents a confusing clinical picture suggestive of cardiovascular involvement.

The presence of a normal echocardiogram is particularly useful in excluding heart disease in these difficult cases. Only rarely will the echocardiogram fail to detect serious cardiac abnormalities in the infant with heart disease. The rapid non-invasive diagnosis by echocardiogram can sometimes obviate the need for cardiac catheterization in both the heart disease and non-heart disease patient.

The echocardiogram, in experienced hands, provides a reliable, non-invasive method of diagnosis in the critically ill neonate.

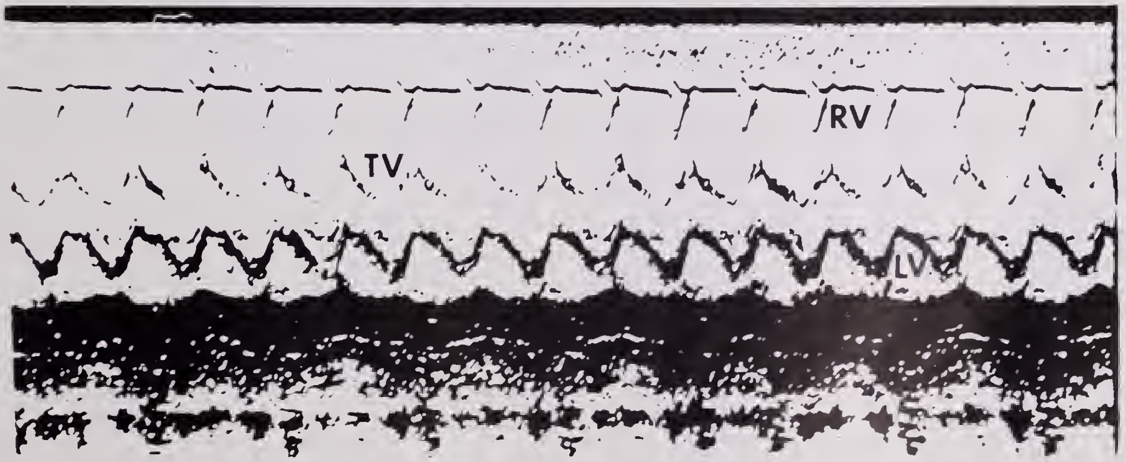

Figure 5B: Echocardiogram showing small left ventricular chamber without normal mitral valve.

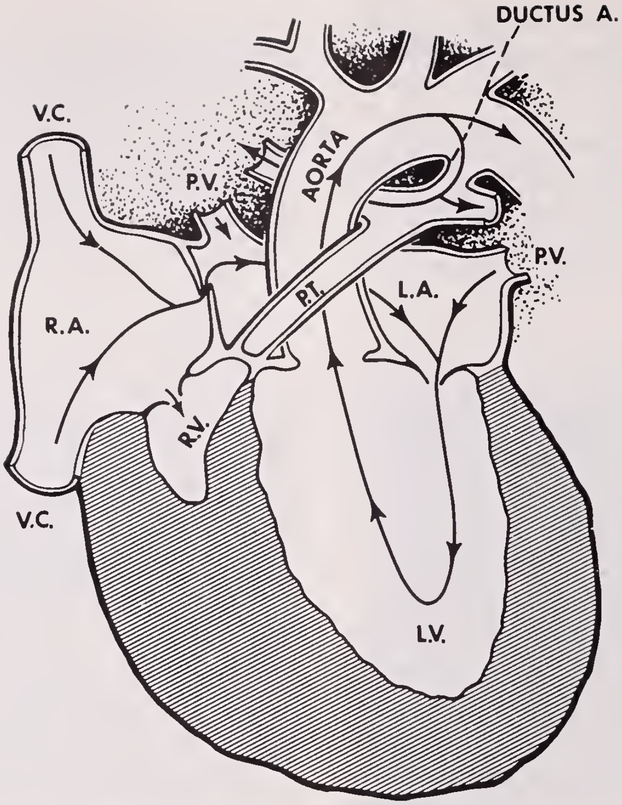

Figure 6A: Schematic representation of hypoplastic right heart.

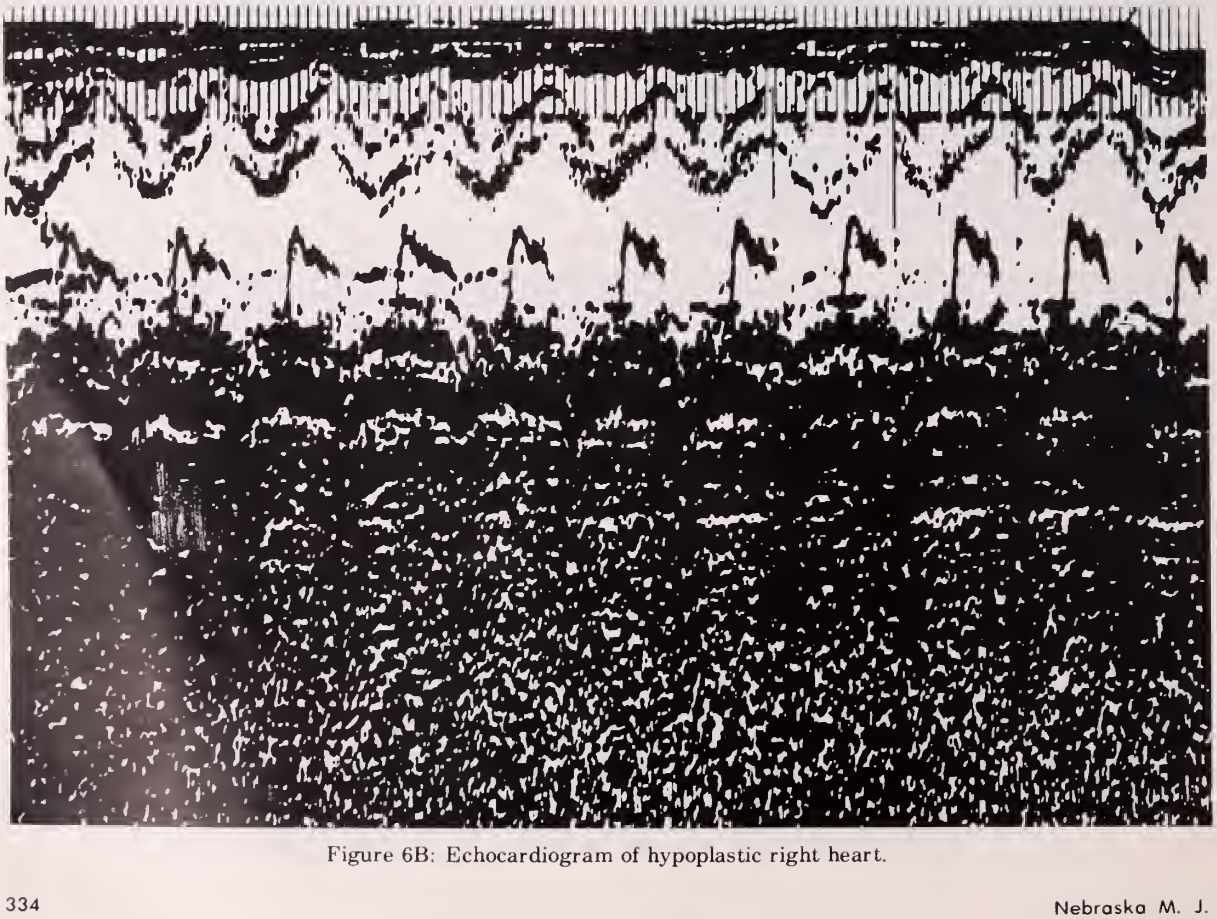

Figure 6B: Echocardiogram of hypoplastic right heart.

Immunization Level Survey of Two-Year Old Children — 1975

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and

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MONEY for an immunization project, primarily federally provided, was made available to the Nebraska State Department of Health for the fiscal year, 1969. No great degree of project activity occurred until a Public Health Advisor was assigned to Nebraska, by the United States Public Health Service (USPHS) in September, 1969.

A measles epidemic had just then begun in northeast Nebraska and in the following months was to spread to most parts of the state with the exception of the southeast. Of necessity, the Advisor's initial task was to effect control measures for this epidemic. From September, 1969, through March, 1970, 25,000 doses of measles vaccine were administered throughout the state. This was done in the form of mass immunization clinics which were held in a variety of public facilities. Rubella vaccine, which was licensed in June, 1969, received mass immunization status in 1970. With the exception of six counties, clinics were held throughout the state from September through November, 1970, and 163,446 doses administered in the age group of one through 11 years. This represented 51% of the children in this age range.

With the advent of combined, measles-rubella (MR), vaccine an additional 27,000 children in the same age category were vaccinated in MR clinics during the school year, 1971-1972.

"Shot" records for school enterers, from which immunization levels could be computed, were first collected by school nurses and transmitted to the project in the fall of 1971. The present immunization law became effective in September of 1973. The law requires that parents of children entering kindergarten provide evidence of immunization against diphtheria, tetanus, pertussis, measles, rubella, and polio to the school administration. From the standpoint of determining immunization levels, the law facilitated, to a modest extent, a procedure already functioning.

A more difficult age group to assess is the preschooler. An annual mail-telephone method of survey of two-year-old children has been in operation for four years, and it is the purpose of this communication to describe its methodology and present results for the current year.

Materials and Methods:

Fourteen counties having a 1973 number of wedlock births greater than 300 were surveyed for January, February, and March. In 1973, 22,771 live-births were recorded by the 93 counties in Nebraska. Of these, 63.4% of the mothers whose infants were surveyed resided in the 14 counties. The number of children represented by the three months surveyed was 3,398.

In March, 1975, card questionnaires were sent to parents of these children requesting information on the immunization status in respect to measles, rubella, polio, mumps, and DTP. Nonrespondents were sent a followup letter in two weeks, and if these remained unresponsive, were telephoned. In this fashion, information was obtained on 66.2% of the children surveyed.

The survey is a random one and is limited to parents still living in the area surveyed and available to provide information. Also, it relies on the memory and cooperation of the parents. It is biased, but it is consistent with the methodology used in the previous three surveys and is a reliable indicator of trends.

Results:

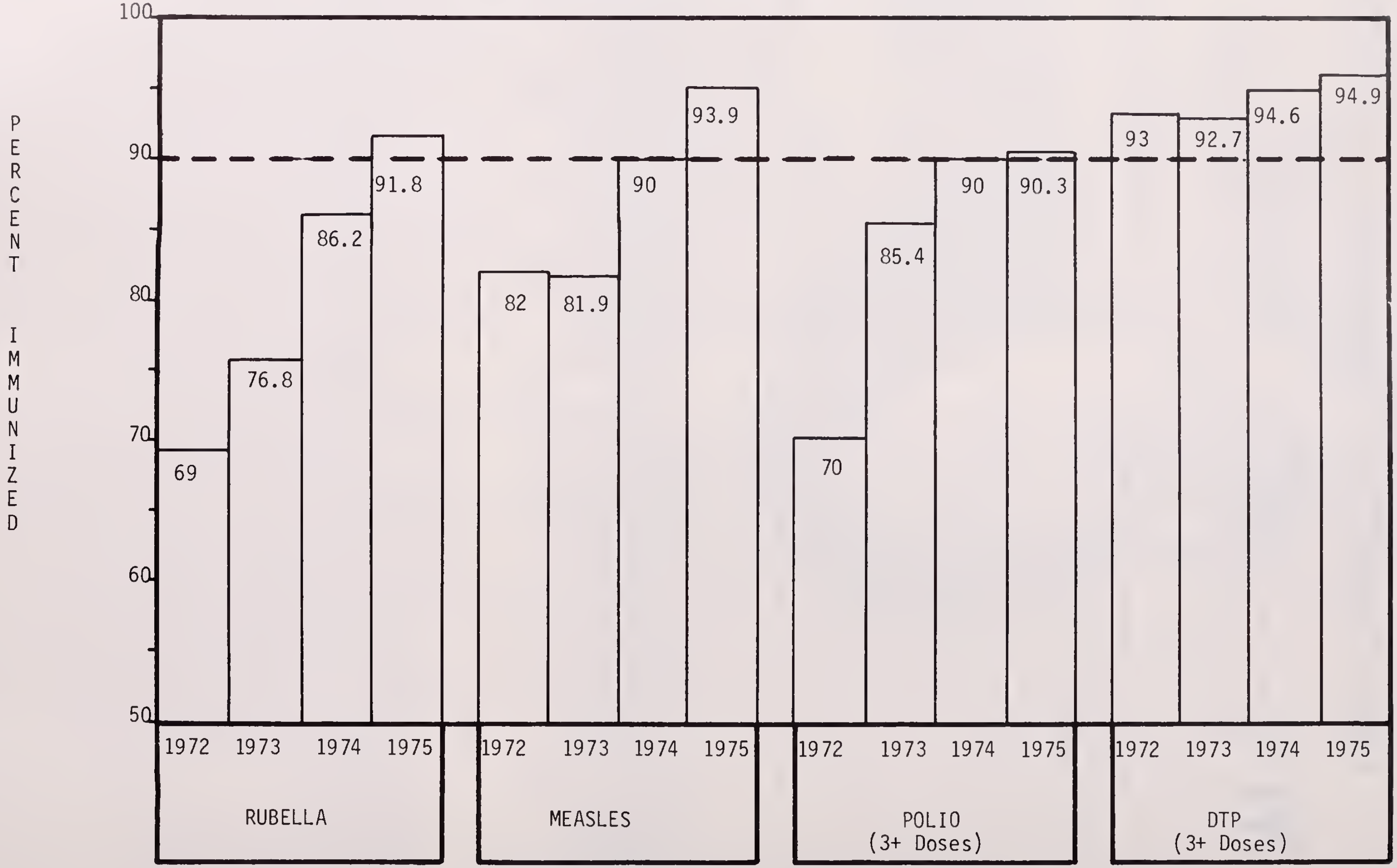
There is a trend for improvement in immunization levels with all vaccines when comparison is made for the past four years.

Figure I

1975

NEBRASKA

Immunization Level Survey of Two-Year-Olds*



*Survey of counties reporting 300 or more births annually.

1. Rubella: The increase in immunity for rubella is the greatest (Fig. 1). A level of 90% is arbitrarily considered as evidence of a reasonable degree of protection against an epidemic, although this will vary from one disease to another. Seven counties fall below this level, and importation of a single case could result in an outbreak. (Table 1)

2. Measles: A reasonably satisfactory increase is noted (Fig. 1); however, in 1974-1975 measles outbreaks occurred in several areas in the state including those where levels were well above 90%. ("Herd" immunity clearly is not a determinant in retarding transmission of measles.) Of the six counties which fall below a 90% immunization level, three experienced measles outbreaks. (Table 1)

3. Polio: The slight increase in polio immunity is disappointing. (Fig. 1). Nine counties fall below the 90% level; four below 80%. (Table 1) The American Academy of Pediatrics (AAP) and USPHS recommendations call for administration of three doses of trivalent oral polio vaccine by six months of age, and four by 18 months of age.[1,2] Minimum protection is provided with three doses. If those children in these nine counties (Table 1) who had previously received only two doses of polio vaccine at the time of this survey would have received one additional dose, the level would have been 96% instead of 90.3%. It has come to our attention that there are still a few physicians who feel that two doses of vaccine are adquate, which may account, in part, for the low levels in some of these counties.

4. DTP: Levels average considerably above 90% but five counties fall below (Table 1). This is a matter of concern chiefly from the standpoint of a possible diphtheria outbreak in these areas.

5. Mumps: This is the first year the Immunization Project has requested statistics for this disease (Table 1). For this reason, no comparison with previous figures is possible.

Recommendations:

To increase levels of immunization requires a coordinated effort among various disciplines, for any one acting alone will have only minimal impact on the problem, if any at all.

1. Private Physicians: An ongoing awareness of the need for completing schedules of immunization should be maintained regardless of the primary reason for a child's visit to the physician's office. This awareness should be shared by all personnel from the receptionist to the office nurse. Another, more deliberate effort consists of an "audit" of all records of preschoolers and a listing of deficiencies.[3] This should be timed with the initiation of a "recall" system similar to that traditionally used by dentists.

2. Local Health Departments: One of the services provided by health departments in Nebraska is the operation of regularly scheduled immunization clinics. These facilities play an increasingly important role in providing services for indigent dependents not receiving benefits from a third party agency. Especially in those counties with very low immunization levels where a small number of physicians practice, and where no health department exists, it might be desirable to set up some form of voluntarily supported ongoing public clinic.

3. State Health Department: The Immunization Program provides; a. surveillance of disease outbreak for the immunizable diseases, b. outbreak control, c. consultation services to physicians and health departments, d. vaccines without charge to immunization clinics and to physicians for use in indigent patients, and e. surveillance of immunization levels. Utilization of these services will assure greater vaccination activities.

4. Federal Center for Disease Control (CDC): This agency acts as consultant and advisor to the State Health Department Disease Control Division in several ways and is available any hour of the day, seven days a week. It also

TABLE I

1975 NEBRASKA IMMUNIZATION LEVEL SURVEY

OF TWO-YEAR-OLD CHILDREN*

MEASLES		RUBELLA		POLIO (3+ Doses)		DTP (3+ Doses)		MUMPS	
County	Percent Immunized	County	Percent Immunized	County	Percent Immunized	County	Percent Immunized	County	Percent Immunized
Douglas+	96.9	Douglas+	95.5	Douglas+	97.9	Platte	100	Platte	93.7
Platte	96.2	Platte	93.7	Platte	93.7	Douglas+	97.9	Gage	88.6
Lancaster+	94.6	Lancaster+	91.8	Sarpy+	92.6	Buffalo	95.5	Dawson	88.2
Dawson	92.6	Sarpy+	91.4	Buffalo	91.0	Sarpy+	95.1	Adams	86.6
Cass	92.3	Dawson	91.2	Adams	90.0	Adams	95.0	Scotts Bluff	85.1
Sarpy+	91.4	Scotts Bluff	91.0	Lancaster+	87.0	Lancaster+	94.6	Lancaster+	82.4
Hall+	90.4	Adams	90.0	Lincoln	84.4	Scotts Bluff	94.0	Buffalo	80.6
Adams	90.0	Gage	88.6	Cass	82.0	Cass	92.3	Lincoln	79.2
Buffalo	89.5	Cass	87.2	Dawson	80.9	Gage	90.9	Dodge	77.0
Scotts Bluff	89.5	Hall+	87.0	Madison	80.0	Dawson	89.7	Madison	73.8
Gage	88.6	Lincoln	85.7	Scotts Bluff	77.6	Lincoln	88.3	Cass	69.2
Dodge	88.5	Buffalo	85.1	Dodge	77.0	Dodge	87.4	Hall+	67.0
Lincoln	88.3	Dodge	81.6	Hall+	72.2	Hall+	86.1	Douglas+	65.1
Madison	80.0	Madison	73.8	Gage	68.2	Madison	84.6	Sarpy+	53.1

*Only Counties with 300+ Births occurring surveyed.

+Public Health Immunization Clinics Available.

provides nationwide leadership in the annual October, Immunization Action Month (IAM). This effort is geared to focus attention on the immune status of the preschool age child.

Fundamental to the above is the keeping of good, concise records. In the physician's office and in the health department clinic such records are regularly kept. However, it is well known that parents, even when provided a complete record of immunization, fail to preserve and maintain it and, when needed, cannot produce it. Every effort must be made by all involved to encourage parents to keep this vital information in a safe place.

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Malpractice — What Is It?

PART I

ROSE FIDELIS FAITHE, M.D., J.D.

MALPRACTICE is defined in Black's Law Dictionary, Fourth Edition, as "Any professional misconduct, unreasonable lack of skill or fidelity in professional or fiduciary duties, evil practice, or illegal or immoral conduct." It is further defined as "In a more specific sense, it means bad, wrong, or injudicious treatment of a patient, professionally and in respect to the particular disease or injury, resulting from an injury, unnecessary suffering, or death to the patient, and proceeding from ignorance, carelessness, want of proper professional skill, disregard of established rules or principles, neglect, or a malicious or criminal intent."

Since, however, there must be a *practice* before there can be malpractice, what are the legal relationships between a doctor and a patient? The relationship is that of a contract. What is a contract? We all think we know — a written piece of paper like the one you had when you bought your house or car. Yes, that is a contract, a written contract, but many contracts are never written. When you go to the cafeteria, the *offer* is the food laid out to be picked up, the *acceptance* is picking up the food, the cashier says "42 cents, please" and you pay her. Contract, yes. Black's defines a contract as "A promissory agreement between two or more persons that creates, modifies, or destroys a legal relation." Or "An agreement between two or more parties, preliminary step in making of which is offer by one and acceptance by other, in which minds of parties meet and concur in understanding of terms." There is no mention of anything in writing and the usual patient-physician contract is not written.

The *offer* is you opening up of an office, with a sign saying John Jones, M.D., outside the door. The patient *accepts* your offer and enters your office. He asks your receptionist "May I see the doctor?" She says, "Sit down, I'll see if the doctor will see you." That word "if" does not yet bind you to a contract. She inquires of you, Dr. Jones, if you will see Mr. Patient. You say yes, and she tells Mr. Patient that you will see him.

A contract is now in force. You have made a promise to see Mr. Patient. He has agreed to be seen. What hasn't been said? No one mentioned the tests which might have to be done. No one mentioned any method of resolution of any dispute which might arise. No one mentioned Mr. Patient's possible insurance, or lack thereof, or how he was going to pay his bill. In fact, no one mentioned when, how, or how much you wanted to be paid. Almost everything about a physician-patient contract is "understood." Part of the problem is that both parties don't "understand" the contract similarly, or expect the same things from the contract.

The doctor expects that the patient will be truthful, will tell the doctor all the history, will be concise, precise, and objective, will do as the doctor requests as to tests and treatment, and will pay the bill promptly. The patient expects the doctor to know, without being asked, most of the symptoms; all of his worries; to instantaneously feel better, without any painful procedures being done or anticipated; and expects to pay, if at all, through a third party. He also expects to be cured. The patient thinks that giving the receptionist an insurance number or claim form is payment. And if that doesn't cover everything, that the doctor should accept *only that* amount as payment. If the bill is too small, he will have doubts as to your ability but if it's too large, you are gouging.

Hopefully, both the physician and patient will have a better and more reasonable expectation from the contract than has been stated. The doctor should understand that patients need to have reasons for examination, tests and treatment explained to them; that patients often don't realize they are withholding information from the physician, and that often many patients cannot pay a $100 bill at one time but could pay in monthly installments. Many patients don't realize that physicians would accept a payment plan, if you or your receptionist don't tell them. The patient generally realizes that something which took months to become evident, i.e., a tumor, isn't cured or alleviated overnight, that many procedures are uncomfortable, and while realizing that insurance forms are not money, hopes that his physician will accept assignment of his (the patient's) rights under the insurance contract he (the patient) has.

With a legal relationship of contract with this patient, you can now practice medicine — and hopefully not commit malpractice.

So how do you prevent malpractice — not malpractice litigation, but malpractice?

First, give the patient the best care you can. Get a full history. Know what caused the pain, when it started, what makes it worse, what makes it better, what has been done by the patient or others. Remember, 85 to 90 percent of diagnoses can be made on the basis of history alone. Your physical may be confirmatory. With the history and physical you can now order only the lab tests which are necessary — reducing the risks to which you expose your patients — and, incidentally, saving them money.

Second, practice preventive medicine. Immunizations, yes. But with a good history and physical, you can pick up the danger points for *this* particular patient somewhat easily. No, you can't take an hour or two for each patient every time you see them, but assume this patient has a sore throat on his first visit to you. You would ask him about this sore throat, other sore throats in the past, allergies, medical problems he has or has had, medications he uses; and you would examine his ears, eyes, nose, throat and lungs today. You could ask him if he has had a complete physical within a year and suggest that he return for a complete exam. If he doesn't come in for that, the next time you see him, you could examine his chest and abdomen, or do a neurological, again with appropriate questions, including a family history of diseases. In three or four visits you will have done a complete history and physical. Then set aside adequate time each day for you to go over at least one complete chart of a patient, to review what the problems are for that patient, if any. If you hospitalize a patient, send a copy of the admission history and physical and discharge summary to your office for your records. When you have thought out what problems this patient might have, then call him in and discuss them with him.

Third, suppose you erred somewhere, or thought you might have. Correct it if you can, or lessen the injury, or repair it. And at that point, get consultation. Suppose that sore throat of Mr. Patient's appeared to you to be a streptococcal sore throat; you did a culture and put the patient on penicillin. Beta strep grew out and was sensitive to penicillin but Mr. Patient is not any better at the end of three days as you expected him to be. Get consultation.

Remember, there are problem doctors, not just problem specialties. The doctor who cannot admit to himself or herself that he or she *can* make a mistake, won't look to see that he or she *has made* a mistake and then won't fix the mistake; at some time that doctor will be sued for malpractice, and the patient will deservedly win. So look at your own attitudes and reactions. Ask yourself, do *you* expect that every one on public aid is mentally retarded or dull normal? Do you expect all poor people to malinger? Do you expect that *all* welfare mothers have illegitimate children? Do you dislike all black people, or Chicanos, or whites, or Italians, or children, or women, or dirty old men or every young girl with gonorrhea? Do you raise your voice when people don't understand your words, instead of changing your words to fit their mental capabilities or language? Do you expect that no "respectable" patient of yours can get gonorrhea so you never do a Thayer-Martin culture? Are *you* a problem doctor?

There are problem patients. Social drinkers, not those on skid row, but your friends at the party last night — what if you didn't know them and they were brought into the emergency room, comatose, with the odor of alcohol on their breath. Would you think to check for a subdural hematoma if there had been no obvious accident? Or would you say, "Oh, that's just another drunk — lock him up" to the police. Yet the symptoms and some of the signs of a subdural hematoma and acute alcoholism are almost the same. How about the social drug abuser? Not the junkie with the tracks up both arms but the one *you* write prescriptions for — how many other drugs is he or she taking, from which doctors, for what purpose, in what quantity? What over-the-counter drugs is he or she taking? Are they also drinking alcohol secretly? Remember that some foods, also, can cause problems with various drugs, i.e., cheese and some antihypertensives. Did your problem patient not tell you he was taking that medication or eating that food? How about the "doctor shopper" — that person who shops for a doctor until she or he finds the one who will write the prescription and diagnosis the patient wants.

Medicine is an art which uses a science. It is not a science. But if available technology is simple, non-invasive and has little or no risk to the patient, use it. What about its cost, in money, to the patient? What cost is justifiable in making a diagnosis? There is no simple answer to this — it must depend on what you are ruling in or out. If by the test you are going to obtain a diagnosis, about which you can then do nothing or very little, to what extent should you go? Suppose a patient you are seeing for the first time comes in for a routine physical for work, but is having no problems? In doing the history, no problems are elicited. He has always been well, the family living long healthy lives, and in fact he has not seen doctors except for well child checks and immunizations. On physical you pick up a murmur. This murmur may be completely benign or may have a serious import. An echocardiogram will make the diagnosis. The approximate cost is $100. Making the diagnosis at this time will relieve *your* mind but the only thing which would happen to the patient would be for you to put him on medication which will relieve pain. The medication will not prevent the condition or alleviate it, and the patient has no pain. Should you then put the patient to the expense? Each of you must answer the question in your own way. But you should note on the patient's chart the murmur — and the possible problems, as well as the reasons you did or did not pursue the matter.

Document what you hear, what you saw, what you did, what you used, what you plan to do. Write it down, tape it, dictate it. Keep good charts, not only because you might be sued for malpractice but because writing it down aids you in thinking it out, in making a differential diagnosis, in following the progress of a patient's health or recovery from disease. You are treating a *patient* who has a disease or may have a disease. You are also treating the disease. You must first understand that patient, his life, his concerns. Then you may be able to aid him in adjusting to his disease, in treating his disease, in managing his life. *Show* you care. Your patient is human. Let him ventilate his frustrations and anger at you or at others or at life itself. Don't turn him off. If a bad result occurred, a patient will be angry. He needs to ventilate, to have some one understand that he doesn't like it. Do what you can to fix the bad result, whether or not there was any malpractice. It is fortunate that Marcus Welby, M.D., is the standard by which we are all judged — be happy that he is a sympathetic, compassionate and competent physician. That the standards set by Dr. Welby are unreasonable is understood. No doctor can see only one patient a day, be a social worker, know everything and cure mononucleosis in one hour. Patients, and we also are sometimes patients, forget that a television program which takes one hour may be covering a period of several months in the lives of its characters. But to a patient, *no one else* is as important as he is.

Addison's Disease in Children: A Case Report

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CHRONIC adrenal insufficiency, Addison's disease, is an entity that quite frequently can remain undiagnosed for a long period of time unless the practitioner, despite the relative rarity of the disease, maintains a high degree of suspicion and is familiar with its atypical clinical features. This is particularly true in pediatric age groups where the symptoms can be attributed to a variety of everyday childhood diseases. Addison's disease is quite uncommon in children of all ages. Since Thomas Addison described its clinical picture before the South London Clinical Society in 1849, approximately 100 cases have appeared in the literature. The majority of them were over 10 years old and well into the adolescence. The disease is rather rare in the 2-10 year old age group. A variety of etiologic factors have been reported as being responsible for the destruction of the adrenals, and any process with significant direct or indirect effect on the adrenal cortex to produce the clinical picture as described by Addison justifies the diagnosis.[1,2] Tuberculosis of the adrenal glands, pyogenic processes, vascular lesions, fungal infections, degeneration of idiopathic origin or due to enzymatic dysfunction, as observed in adrenogenital syndrome, are etiological factors resulting in adrenocortical insufficiency.[3]

Prior to the advent of chemotherapy, tuberculosis used to be the most common cause; at present however, the majority of cases are due to degeneration of the adrenal cortex of idiopathic origin and no etiological factors can be determined.

The cardinal features of Addison's disease have remained unchanged since the entity was first described more than 120 years ago, and include; extreme weakness and lassitude, weight loss, skin pigmentation, hypoglycemic crises, convulsions, generalized abdominal pain, profuse diarrhea, and vomiting.

Gastrointestinal symptoms are present in about 85% of the patients. Skin pigmentation may appear long before any other clinical symptoms become evident and it is observed in more than 90% of patients with Addison's disease. It is a dark brown-tan-like discoloration with generalized distribution involving both the exposed and covered areas of the body. The creases, scars, swim-suit area and those of high pressure are sites of predilection. Recurrent convulsions are seen in 13% of the cases, and not infrequently seizure activity is the presenting complaint that negates further evaluation of the patient with unsuspected chronic adrenal insufficiency.[4,5]

Because of the apparent rarity of Addison's disease and the difficulties attending the early diagnosis of this entity in pediatrics, the presentation of this case report was deemed to be appropriate.

Case Report:

The patient is a 13 year old male who was admitted to the Pediatric Ward of St. Joseph's Hospital Creighton Medical Center on 4-5-75 because of exhaustion, fatigue, and difficulty to keep up with peer group activities. On admission evening, while in his barber's shop the patient felt extremely weak and exhausted. Moments later he was found drowsy, unresponsive in his chair, and shaking. He was brought to the emergency room immediately where he was found to be semiconscious and in a postictal state. Parents stated that he had experienced vomiting and diarrhea for 4 days prior to this episode and a seizure-like activity 4-5 times at home in the previous 2 months. In the emergency room he was afebrile, and was admitted with the diagnosis of unconscious spells of questionable cause, mild otitis media, pharyngitis, and possible epilepsy. The patient had been in apparent good health until 3 months ago when he became anorexic, fatigued, and depressed. He demonstrated signs of withdrawing and gradual change in his skin color to brown-tan appearance. On occasions he was shivering and sweating. Hospitalization three months prior to this admission because of fever, fatigue, and upper respiratory infection was thought to be due to a viral infection.

Physical examination revealed a 13 year old male lying on his back, immobile and complaining of extreme exhaustion. He was in the 25th percentile for weight and height. His temperature was 99 degrees F, respirations 20/minute, and his heart rate was 100/per minute with regular sinus rhythm. His blood pressure was 86/52. There was a generalized light brown pigmentation of all the skin and particularly over his elbows, knuckles, knee and genitalia. Hematological evaluation indicated a total white blood cells of 10,600 per cu mm with 56% neutrophiles, 33% lymphs, 5% basophyls, 6% eosinophils, and an absolute eosinophil count 476 per cu mm. The erythrocyte sedimentation rate was 53mm/hour; the retyculocyte count 4%. Urinalysis revealed a specific gravity of 1.029, with an acid reaction and no evidence of protein, sugar, or reducing substances. The serum sodium was 139 mEq/L, chloride 107 mEq/L, potassium 4.1 mEq/L, CO_2 content 24 mEq/L, calcium 8.6 mg%, phosphorus 5.2 mg%, blood glucose 67 mg%, uric acid 3.8 mg%. The total bilirubin was 0.6 mg%, LDH 234 Mu/ml, SGOT 63 Mu/ml. BUN 18 mg%, creatinine 0.8 mg%, cholesterol 132 mg%. Total serum protein was 5.9 gr% with 3.8 gr% albumin, free thyroxine (T7) 5.4 mg%. Blood and urine culture showed no growth. A chest x-ray showed no parenchymal or hilar lesions. The heart size was normal. X-ray of the abdomen was normal and showed no calcification or abnormalities. Tuberculin and histoplasmin skin tests were negative. Serum cortisol was determined prior and during corticotropin stimulation. Data are shown in table I.

Special Tests: Corticotropin stimulation test.

The 24 hour urine was collected prior to testing as control for the determination of 17 ketosteroids and 17 hydroxycorticosteroids. Afterwards 25 units ACTH (Cortrosyn) was infused in 500 cc of normal saline solution over an 8 hour period daily for 3 consecutive days. 24 hour urine specimen for 17 ketosteroids and 17 hydroxycorticosteroids determination for those 3 days was collected with simultaneous morning and evening cortisol levels measurements. (Table II). As

TABLE I

Serum cortisol levels prior to and during corticotropin stimulation remained considerably below the normal levels. (5-24 mcg%).

	DATE	AM	PM
Control	4- 7-75	3 mcg%	2.5 mcg%
	4- 8-75	2.5 mcg%	3 mcg%
Corticotropin IV	4- 9-75	3.5 mcg%	2.5 mcg%
	4-10-75	3 mcg%	2.5 mcg%
	4-11-75	2.5 mcg%	4.5 mcg%

TABLE II

Twenty-four hour urinary excretion of 17 ketosteroids, 17 hydroxycorticosteroids, and creatinine prior and following intravenous administration of corticotropin for three consecutive days;

	Date	Urine Volume Collected, ml	17 Ketosteroids, mg/24 hr	170 HCS mg/24 hr	Creatinine mg/24 hr
Control	4- 8-75	540	1.8	1.3	0.5
Corticotropin IV	4- 9-75	1065	1.1	1.1	0.5
	4-10-75	780	0.9	0.8	0.5
	4-11-75	1060	1.2	1.2	0.5

is shown in tables I and II, there was no response to corticotropin stimulation, indicating impaired adrenal reserve, confirming the clinical impression of adrenocortical insufficiency.

Following the establishment of diagnosis of Addison's disease, the patient was placed on 12.5 mg cortisone acetate in the morning and at bedtime with excellent results. He has regained his physical strength and is quite active in his school and other everyday activities. However, the skin discoloration, although somewhat decreased, continues to persist.

Comment:

Extreme lassitude and skin discoloration were the presenting symptoms that suggested Addison's disease in this case. Craving for salt was also a lesser complaint that along with the increase of eosinophils in the peripheral smear pointed to the nature of the process. Addison's disease can appear with two distinctly different presentations depending on whether cortisol or aldosterone deficiency is more pronounced. Hypoglycemia, pigmentation, and loss of prompt water diuresis are rather related to cortisol deficiency, whereas loss of renal sodium, hyperkalemia, dehydration, and acidosis are the results of decreased aldosterone production.[6] Biochemistry evaluation of this case demonstrated cortisol deficiency, and no evidence of aldosterone secretion impairment. The blackouts and convulsion-like episodes experienced by the patient have to be attributed to hypoglycemic crises. Adrenal insufficiency although a rare cause of hypoglycemic convulsions in children should be kept in mind and be ruled out in such instances. Excessive tanning of skin that fails to disappear in winter, and unexplained eosinophilia in the perpheral blood smear should alert the physician to the possibility of adrenal cortical insufficiency.

The disease can present itself either insidiously with weakness, anemia, and gradual discoloration of skin or with an overwhelming onset with serum electrolyte disturbances, fever, gastrointestinal symptoms, and convulsions. In both instances, the similarities of symptoms to a variety of childhood diseases require a high degree of suspicion in order to reach the diagnosis early in the process and not to delay therapy. With the advent of better diagnostic procedures and the availability of cortocosteroids, the prognosis of adrenal cortical insufficiency has greatly improved and appears to be excellent.

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Fifty Years in Medicine

NANCY CATANIA, M.D.

LIFE is very real and very earnest even when you are young. I was one of six daughters and as a child I heard my father comment on several occasions that had he had a son he would have liked him to be a doctor.

My parents started me studying the piano at the age of seven and as I was growing up, relatives and friends predicted I was going to be a concert pianist, when at the same time I was dreaming of becoming a doctor.

Come high school, more music and graduation, then a decision to take a premedic course while music loving relatives wondered. I played accompaniments for one of my sisters, who was a violinist, and was also accompanist for my cousin, Annunciata Garrotto, who later became a professional opera singer.

I received my Bachelor of Science degree from the University of Omaha and my Doctor of Medicine degree from the University of Nebraska School of Medicine in 1926. Following graduation, I interned at the Lincoln General Hospital, Lincoln, Nebraska, where I was the only interne and gained excellent training for my long dreamed of profession.

After completing my interneship, I returned to Omaha and went into private practice, limiting my practice to women and children. As a result, my practice settled to mostly Gynecology, Obstetrics, and Pediatrics.

In 1928, I joined the faculty of Creighton University College of Medicine, starting as assistant in Gross Anatomy and Gynecology, then later becoming instructor in both subjects, and in 1938, became Assistant Professor in Gross Anatomy. In 1939, I served as Assistant in Physical Diagnosis. My private practice was growing, requiring more of my time and in 1942, resigned from the University staff. However, in 1949, I accepted the appointment of assistant in Surgery and had to resign that post in 1953, due to illness. I might mention that amongst the students that I taught, a number of them are famous physicians today, one of them being Dr. Wallace H. Graham, who was President Harry Truman's personal physician. I taught him Gross Anatomy, Applied Anatomy, and Gynecology.

I was appointed Medical Director of the Supreme Forest Woodmen Circle in October 1951. Upon completion of one year I resigned, feeling that my private practice was being neglected.

Medicine is a wonderful profession and one has to be a dedicated individual to that profession in order to survive and be a success. There are times of great satisfaction and times of disappointments. It was very hard in the early days when we delivered babies in the home at all hours of the day or night, made house calls at all hours, and likewise with emergencies. I remember one specific day when I had patients in four hospitals. I made hospital rounds in the morning, had office hours in the afternoon, and later had five house calls to make, which meant I did not get home until after midnight. We gave up a lot — did not have much time for social life.

One time I was supposed to go to the Douglas County Medical Society's formal dinner party which was held annually for members only. It was at the Fontenelle Hotel and I was very excited as I was wearing a lovely new formal and gold sandals. Just as I was about to go out the door, the phone rang. One of my patients was in labor and wanted me to come immediately. I remember saying, "But your baby is not due for two weeks!" Well, that didn't make any difference. I changed my dress, left my gold shoes on, grabbed my bag and out I went. She delivered that night. I missed the party.

The general practitioner has may interesting cases which could be reported. I have a record of delivering twins and a set of triplets, the latter being a rare experience and a thrill for me.

In February of 1958, **Scope Weekly** reporters put up a question to physicians in four cities. I was the physician selected in Omaha, Nebraska. "Which of your cases do you feel taught you the most?" My answer was, "I feel the case that taught me the most was that of a patient with rupture of the posterior layer of the left broad ligament with extensive abdominal hemorrhage, which is a rare and unusual condition."

An extensive search of the literature revealed only two reported cases; namely, G. T. Allen's publication in 1946, and B. C. Hirsts's in 1889. Personal contact with the Mayo Clinic revealed they had no reprints on rupture of the broad ligaments in the female pelvis.

A single woman, 27 years of age, came to my office about 11:30 a.m. on May 20, 1947, complaining of severe intermittent cramping pain in the region of the umbilicus. She had vomited her meal the night before and felt so nauseated that she was unable to eat breakfast. Patient looked acutely ill. Temperature was subnormal, pulse 100, respirations 20. On examination, pain was elicited around the umbilicus extending to the right quadrant of the abdomen. There was no distention. On bimanual pelvic examination, there was slight thickness of the left parametrium. Cervix was normal and no discharge present. Menses regular. Last menstrual period normal, having started five days before onset of present illness.

Etiology in this case was vague. Patient denied any history of injury or sexual relationship. Patient later recalled having fallen down flight of cement steps, landing on abdomen a few days before onset of symptoms. There were no bruises or pain; consequently, patient attached no importance to the fall.

On admission to hospital, leucocyte count was 13,900. Catheterized specimen of urine, negative. Later that evening leucocytes increased to 19,800. Patient was critically ill. Abdomen was greatly distended and tender on palpation. Temperature 100, pulse 110, respirations 20.

An exploratory laparotomy was carried out. When the peritoneum was incised, a large amount of blood gushed from the opening. An extensive hemorrhage filled the abdominal cavity due to a wide tear on the inferior surface of the left broad ligament. Tear was sutured, appendix excised and a left salpingo-oophorectomy was done.

Required postoperative measures were prescribed and the patient made an uneventful recovery. Dismissed on 23rd postoperative day.

The fact that the patient fell at the time of the onset of her menstrual period might account for the beginning rupture of the posterior layer of the broad ligament. The extensive tear did not occur immediately; there was gradual ooze of blood which accumulated and formed a large mass of clotted blood. This mass produced pressure and distention in the broad ligament leading to its rupture.

A Few Personal Notes

In August 1958, I married William A. McDermott and retained my professional name.

Am semiretired doing office work only.

Was President of Omaha Women's Medical Association, 1952-1954.

Listed in:
- Who's Who in Omaha
- Who's Who in Nebraska
- Who's Who in the Mid-west
- Who's Who in American Education
- Who's Who of American Women
- Who's Who in the International Blue Book

In conclusion, I should say that we need more women physicians, especially in obstetrics. There are many women who want women doctors.

Down Memory Lane

1. With the introduction of insulin the diabetic patient has become a much more active problem in surgery than ever before.

2. For some years I have been impressed by the fact that the subject of cancer of the stomach has been lamentably neglected by the profession of Nebraska.

3. Is the old-fashioned family doctor about to disappear?

4. We as physicians should give the vitamin balance more serious consideration in prescribing diets.

5. The real cause of rickets is not known.

6. The physician must inform himself and cast his ballot if he is to discharge his common duty with all citizens, discharge his special duty as an educated and intelligent citizen and protect the practice of the profession from vicious legislation.

7. Nebraska has less pulmonary tuberculosis, according to national statistics, than any other state in the union. Every physician knows by his own community that this reputed freedom from tuberculosis is fictitious.

8. What many medical society meetings lack these days is the dynamic in leadership.

9. An epidemic simulating typhoid, if not true typhoid, has occurred at Meadow Grove, traceable in all cases, to bathing in the river.

10. Doctors of Medicine have been in a state of lethargy. Let us awaken and make our influence felt.

11. Patients with trachoma often think that all they need is glasses.

Nebraska State Medical Journal
September, 1926

PRESIDENT'S PAGE

MEDICAL LIABILITY INSURANCE

On July 10, 1976, LB434 became law in Nebraska. This medical liability bill has been passed by the Nebraska Unicameral and signed by the Governor. Consequently, it is now law in Nebraska and will remain so until the Supreme Court should find it unconstitutional or until amended by the Legislature.

Most of us are aware of the fact that the Attorney General has recommended that the Director of Insurance not implement the law because some provisions of the act are "constitutionally suspect." This action by the Attorney General in no way negates the law. Although this action and the accompanying news media articles have produced a great deal of confusion among the physicians practicing in Nebraska, the act is still the law of the land and its provisions are available to all Nebraska citizens.

Since it is the law and since it is felt that the Nebraska Supreme Court will confirm the constitutionality of the measure, it is strongly recommended that the physicians in the State qualify to come under the provisions of the Act. It is hoped that the physicians will give the same strong support in qualifying under the Act that they gave in supporting the passage of LB 434. Such a unified effort to make the law operational will certainly convince the opponents of the Act that physicians are utilizing the provisions of a law which they had previously stated were desperately needed in the State. Since all provisions of the Act are in effect if you qualify under the Act, you as a physician will benefit from the many important features of the law including the limitation of liability to $500,000, the reduction of the statute of limitations and the use of the medical review panel. If you currently have a claims made policy, the overriding "tail" will be terminated at an earlier date by qualifying now rather than later.

To qualify under the Act, it is the advice of legal counsel that you (1) obtain a certificate from your insurance agent indicating that you have basic $100,000/$300,000 coverage, the premium charge for this coverage, the name of your carrier and the dates of coverage; (2) forward a check payable to the Director of Insurance equal to 50% of the basic premium together with your certificate of insurance; and (3) post a sign in your waiting room or other suitable location that you are practicing medicine under the provisions of this Act. Although this sign has been forwarded to you, duplicate signs may be obtained from the office of the Nebraska Medical Association.

It is the opinion of the legal counsel that complying with the above provisions entitles you to full coverage under the Nebraska Medical Liability Act. Although you run the risk of challenge, it is very possible that you will be under the Act if you (1) provide the Director of Insurance with the above certificate of coverage; (2) post the necessary sign in your waiting room; and (3) direct a letter to the Director of Insurance stating that you will remit the appropriate number of dollars to come under the Act if he will determine and inform you of the amount. This procedure would hold the advantage of not having to remit any money until the constitutional question has been resolved.

a new
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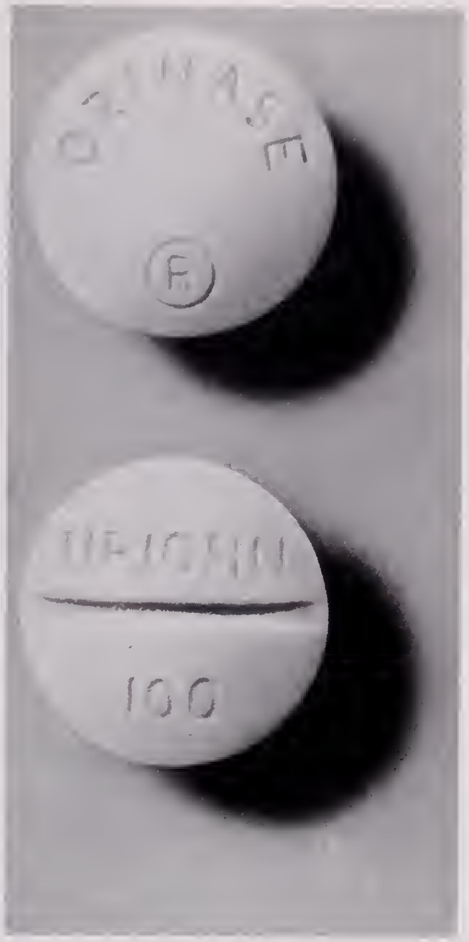
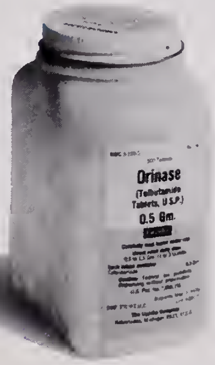
for



Orinase®
tolbutamide, Upjohn
0.5 Gm tablets



This new design will help pharmacists, physicians, nurses, and patients identify Orinase by name and manufacturer. The number on the tablet is for identification and is not related to tablet strength.

You may wish to advise your patients that this change is taking place.

J-5255-6

The Upjohn Company, Kalamazoo, Michigan 49001 **Upjohn**
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For insomnia that is a chronic problem…

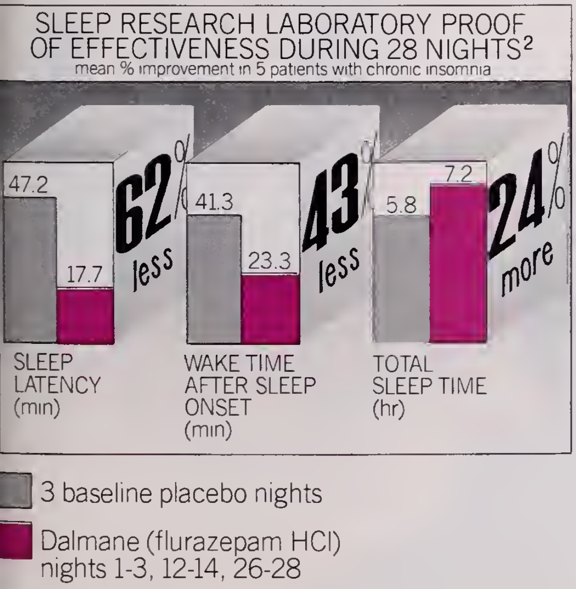
Only Dalmane (flurazepam HCl) **offers sleep laboratory proof of effectiveness for as long as 28 nights**

Continued relief of insomnia in patients with chronic insomnia

Since insomnia is often transient and intermittent, the prolonged administration of a hypnotic is generally not necessary or recommended. But when insomnia is a chronic or recurring problem, continued effectiveness is as important as initial effectiveness. Results of a recently published sleep research laboratory study[1] demonstrated that, while pentobarbital lost effectiveness within two weeks, Dalmane maintained effectiveness for 28 consecutive nights. Similar 28-night results with Dalmane, displayed below, were obtained by a second sleep research group.[2] In previous studies,[3] both chloral hydrate and glutethimide began to lose effectiveness after several nights, while Dalmane maintained effectiveness throughout the 14 medication nights. Whether the problem is difficulty falling asleep, staying asleep or sleeping long enough, consider these results when selecting a sleep medication.

SLEEP RESEARCH LABORATORY PROOF OF EFFECTIVENESS DURING 28 NIGHTS[2]

mean % improvement in 5 patients with chronic insomnia



Please see following page for a summary of product information.

Patient benefits include relative safety, infrequent morning "hang-over"

Dalmane is well tolerated, seldom causing morning drowsiness or grogginess.[4] No increase in dosage is required for continued effectiveness from night to night.[1-3] Should Dalmane be used repeatedly, periodic blood counts and liver and kidney function tests should be performed. The usual adult dose is 30 mg *h.s.*, but 15 mg may suffice for some patients and is recommended as a starting dose for the elderly and debilitated to help preclude over-sedation, dizziness or ataxia.

Continued relief of insomnia: One more good reason to specify

Dalmane®
(flurazepam HCl)

One 30-mg capsule *h.s.*— usual adult dosage (15 mg may suffice in some patients).
One 15-mg capsule *h.s.*— initial dosage for elderly or debilitated patients.

whenever a hypnotic is needed

ROCHE

New objective proof: continued insomnia relief without increasing dosage...[1,2]

Dalmane®

(flurazepam HCl) Ⓒ IV

Objectively proved in the sleep research laboratory...

during 28 consecutive nights of administration:

- ☐ **effectiveness with a single 30-mg *h.s.* dose, maintained**
- ☐ **rapid sleep induction, maintained**
- ☐ **sleep for 7 to 8 hours, on average, maintained**
- ☐ **less time awake during the night, maintained**

Before prescribing Dalmane (flurazepam HCl), please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

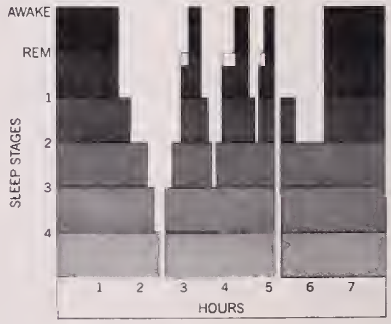
Dosage: Individualize for maximum benefic effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

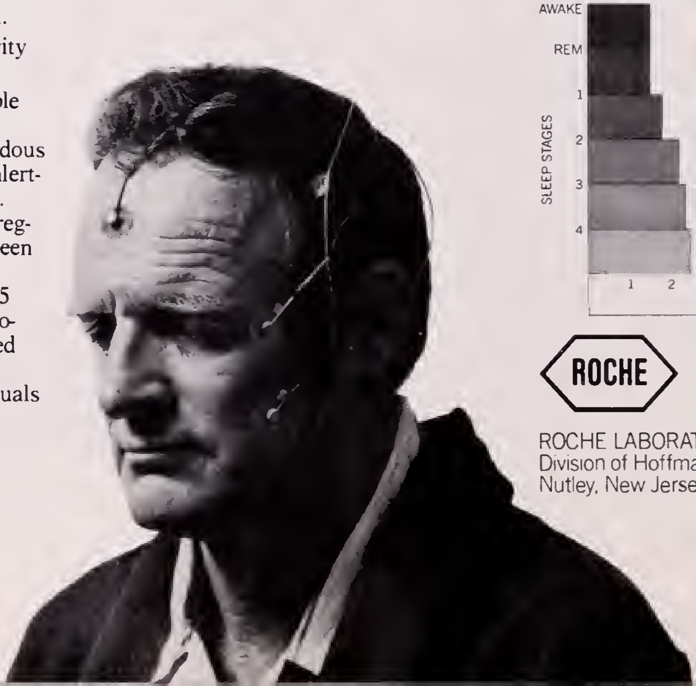
Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

REFERENCES:

1. Kales A, *et al*: *Clin Pharmacol Ther 18*:356-363, Sep 1975
2. Dement WC, *et al*: Long-term effectiveness of flurazepam 30 mg *h.s.* on chronic insomniacs. Presented at the 15th annual meeting of the Association for Psychophysiological Study of Sleep, Edinburgh, Scotland, Jun 30-Jul 4, 1975
3. Kales A, *et al*: *Arch Gen Psychiatry 23*:226-232, Sep 1970
4. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ

For all common types of insomnia





ROCHE

ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Through unity of action, we were provided with a medical liability act that we feel is constitutional and in the best interest of the citizens of Nebraska — our patients as well as ourselves. However, we need unity of action in attempting to implement this law in spite of the statements of the Attorney General, the news media, insurance agents and the opponents of the law. Strong support in attempting to implement the law at this time is needed as we look to the weeks ahead. There is much to be gained in our attempt to implement the law and, actually, little or nothing to be lost.

Harlan L. Papenfuss, M.D.
President

Welcome New Members

Ben E. Crouse, M.D.
418 North Spruce
Ogallala, Nebraska 69153

Paul J. Nelson, M.D.
9006 Ohio Street
Omaha, Nebraska 68134

McClure L. Smith, M.D.
University of Nebraska Medical Center
42nd and Dewey Avenue
Omaha, Nebraska 68105

The Auxiliary

EMPHASIS FOR 1976-1977

When installed at the State Convention in Kearney as your President for the year 1976-1977, I attempted to paint a mental portrait of the Nebraska Medical Auxiliary. The general shape was sketched and our character that gives us distinction was added, including our knowhow and talent, our desire to be of service, and the fun and inspiration we blend in to make the duties easier. The highlights, our accomplishments, were outlined trying always to keep it simple and understandable.

Color brought our portrait to life — yellow for light and warmth, for flowers that bend in the wind but don't break and are fragrant as well. A portion of blue was added for serenity, gathered from time taken to think and ponder, to gather strength, and dispensed in courtesy, sympathy and consideration in our dealings with each other. A splash of red was next to chase the blues, bringing dash and verve, a desire to try new ideas and refurbish the old. Optimism must have been created red. For harmony green was swirled in using one auxiliary member's talent for organization, another's selling ability, others' artistic, creative or inspirational ability. We may find green becoming the dominant color with the discovery and combining of each person's talent.

At the last, white was worked throughout to make the other colors stand out and give them life and intensity. Specific goals may be equated to white in our auxiliary work.

For a finishing touch (and because I collect rocks) a rock was added for stability and on it was perched a little butterfly for spirit, freedom to soar to new heights.

But beware, my friends, our portrait can be dull, lifeless, depressed, and uncaring. In this day of increasing pressures we personally — or our families, friends, coworkers — may feel this way, as well as present this image. Our emotional health is the color chart for our portraits. Therefore, this next year we will try to offer programs on emotional health emphasizing the positive — prevention, maintenance of current good feeling, and where possible, practical means of dealing with problems that have already arisen.

May I ask each of you to do one thing that we can paint into our collective portrait. It may be to:

Pledge or contribute to the Health Galleries.

Inform yourselves and others on Legislation.

Inspire a new member to join by pointing out good things in Auxiliary.

Buy a product that aids AMA-ERF or give a memorial or gift in another's name. This can be done through the Health Galleries, also.

Be an educator — wherever people are listening. Be knowledgeable first, then volunteer to share your knowledge on abuse, prevention of rape, defensive driving, Talking Books, immunization, or other topics of Auxiliary concern.

Contact me at 1743 Idlewood Lane, Grand Island, 68801 for details, names of chairmen, or just to express a need, an interest, a word of encouragement. If you would like to be a member, we would welcome you. Dues, a bargain at $11.

If it is your style of painting do it alone — or with a friend — maybe a stranger who shares your ideals. Do it with another organization — YW, Red Cross, Extension Clubs — seeking recognition for medicine where feasible.

Each in his own way will be "doing his own thing" but doing it for the health of all. Then let's come together, perhaps a meeting — Board meeting (October 1), community meeting, workshop, local auxiliary — to share different ideas and fellowship. "Together we can do more" says our membership badge. We can collectively present a stunning portrait to the rest of our world.

Harriette Francis
State President

In Memoriam

By medicine life may be prolong'd
yet death
Will seize the doctor too.
—Shakespeare

DR. HENRY CHARLES HANSEN

Doctor Henry Charles Hansen died on May 14, 1976, at the age of 85. He was born in Escanaba, Michigan, on January 23, 1891.

He graduated from the Chicago College of Medicine and Surgery in 1917.

Doctor Hansen was a physician at the Nebraska State Hospital for the Tuberculous for 20 years.

He is survived by his wife, Nelle; three daughters, Charlene Tibbets of Urbana, Ill.; Evelyn Frohmberg of Overland Park, Kansas; and Lily Ann Nielsen of Anchorage, Alaska; one son, Gordon L. of Nehawka; and 10 grandchildren.

DR. JULIUS A. JOHNSON

Doctor Julius A. Johnson died on June 7, 1976, at the age of 84. He was born in Omaha, Nebraska, on August 25, 1891.

He graduated from the University of Nebraska in 1914 and received his medical degree from the University of Nebraska College of Medicine in 1917.

Between Cases

Words I can Do Without.

Normative, first and foremost, jokery, concision, make mention of.

What Does It Mean?

Radius: a spoke.
Cuneiform: like a wedge.
Pisiform: like a pea.

The Panel.

The speakers don't have facts; they have opinions.

Halberstram and Lesher: A coronary event.

The Physical.

The exams are going to be pretty identical, except where described differently.

I Agree.

Nobody's in your head but you.

Helen, in In the boomboom room, by David Rabe.

Quote Unquote.

The feeling that you will make a mistake is your biggest mistake.

Anon.

Heard On TV.

A folk singer is a person who gets rich singing how wonderful it is to be poor.

Ibid.

I Saw It Somewhere.

Iris eyes are smiling.

Section On Statistics.

There are supposed to be 23 million people with high blood pressure in the United States.

On Fevers.

His bed, too, was hard, and this preserved him from fever.

Galsworthy, The apple tree.

On Sleeping.

Deep in the arms of Morphy, or Murphy.

Anon.

What Somebody Said To Me.

This relates to that.

Department Of Internal Medicine.

Good health, not disease, should be contagious.

Anon.

The First Physician Whose Name Is Known.

Im-ho-tep; about 2600 B.C.

Cot Death.

Each year in the United Kingdom, about 2,000-3,000 babies from one month to two years are found dead unexpectedly.

I Know What He Means.

It was put back in place on his belly with a water bucket.

The Impression.

Left neck, shoulder, and elbow pain related to previous myocardial infarction, but the etiology of this pain is not known.

—F.C.

Picture Gallery At the Annual Session, 1976, of the Nebraska Medical Association.

Doctor Harlan L. Papenfuss presenting plaque of appreciation to Doctor Warren G. Bosley.

Doctors Warren G. Bosley and Harlan L. Papenfuss.

Immediate Past President, Doctor Warren G. Bosley; NMA President, Doctor Harlan L. Papenfuss and President-Elect, Doctor Arnold W. Lempka.

Doctor Warren G. Bosley presenting Presidential Address.

Mr. Merrill J. Mattes addressing Annual Distinguished Luncheon.

Doctor Harlan L. Papenfuss presenting Doctor Esley J. Kirk with fifty-year certificate.

Doctor Harlan L. Papenfuss presenting Doctor William F. Novak with fifty-year certificate.

Doctor Harlan L. Papenfuss presenting Doctor Donaldson W. Kingsley, Sr. with fifty-year certificate.

Picture Gallery At the Annual Session, 1976, of the Nebraska Medical Association.

Doctor Harlan L. Papenfuss presenting Doctor Nancy Catania with fifty-year certificate.

Doctor Harlan L. Papenfuss presenting Doctor Hardin S. Tennant with fifty-year certificate.

Doctor Harlan L. Papenfuss presenting Doctor Charles R. Williams with fifty-year certificate.

Doctor Harlan L. Papenfuss presenting Doctor Charles P. Waite with fifty-year certificate.

Our Medical Schools

Chest diseases.

The fourth annual conference on chest diseases will be held at the University of Nebraska Medical Center November 4 and 5, 1976.

Program coordinator will be Dr. Irving Kass, professor of internal medicine.

Registration fee of $70 includes luncheons.

The annual Student Research Forum will be held Monday, November 8 at the Medical Center.

This program is designed to provide an opportunity for students to present their own research, discuss and field questions concerning their research.

Both meetings will be held in the Center for Continuing Education at the Medical Center.

Infertility.

The University of Nebraska Medical Center will co-sponsor a course at Louisiana State University School of Medicine Friday and Saturday, September 10 and 11, in New Orleans.

"Current Concepts in Clincal Management of the Infertile Couple" will be offered in cooperation with LSU.

Advance registration is required. The fee of $150 includes luncheons, refreshments, banquet, course materials and a charter bus trip to Baton Rouge for the LSU - Nebraska football game.

Write to: Dr. Rafael C. Sanchez, Associate Dean, LSU School of Medicine, 1542 Tulane Avenue, New Orleans, Louisiana 70112.

Lasix® Tablets (furosemide) 20 mg and 40 mg in hypertension.

Lasix Tablets have been shown to reduce elevated blood pressure in diuretic-responsive patients.

Lasix. For the treatment of essential benign hypertension.

Please see other side of this advertisement for prescribing information.

Lasix® Tablets (furosemide) 20 mg and 40 mg in hypertension.

A brief summary of the Prescribing Information for
Lasix® (furosemide) Tablets 20 mg and 40 mg

WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO_2 and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperuricemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering curare or its derivatives to patients undergoing therapy with Lasix (furosemide), and it is advisable to discontinue Lasix (furosemide) for one week prior to any elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticaria and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, or diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (with purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported; however, relationship to the drug has not been established with certainty: sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinary frequency.

Dosage and Administration

ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as a single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individually determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day in those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged periods, careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent as soon as Lasix (furosemide) is added to the regimen to prevent excessive drop in blood pressure. As the blood pressure falls under the potentiating effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infants and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white, round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information

Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD_{50} of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD_{50} ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD_{50} of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often became dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of the drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in rats and dogs. In a one-year study in rats, renal tubular degeneration occurred, with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed calcification and scarring of the renal parenchyma at all doses above 10 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 17 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused maternal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate fetal lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of the renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.

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The laboratories.

The AMA has urged the House Commerce Committee to make major changes in legislation to bring the nation's clinical laboratories under tighter federal control.

One of the most controversial provisions of the Clinical Laboratory Improvement Act (CLIA) as approved by the Commerce Health Subcommittee prohibits Medicare reimbursement for labs under any rental or lease which involves a percentage arrangement.

The AMA singled out two other provisions for special concern in the CLIA bill. One allows an exemption for a laboratory in a physician's office but only where physicians actually perform all tests and procedures in connection with the treatment of their patients. "With such a restriction, laboratories operated in physicians' offices would be forced to close down," said the AMA. "Existing law exempts laboratories operated by physicians where tests are done personally or through employees solely as an adjunct to the treatment of their own patients. This exemption should continue."

The other provision deals with revocation of a license for a number of activities, one of which is finding that the owner or operator of a laboratory has engaged in a billing practice which creates a discriminatory effect between patients reimbursed, in whole or in part, under programs receiving federal funds and patients who are not so reimbursed.

Medicare-medicaid.

The Medicare-Medicaid cost containment bill proposed by Sen. Herman Talmadge (D-Ga.) could have harmful consequences on patients, the AMA has told the Senate Finance Health Subcommittee.

"In view of the continuing inflationary pressures in our economy, we are indeed sympathetic with the intent of this legislation to seek limitations upon the increasing costs of these health programs," testified Edgar T. Beddingfield, Jr., M.D., Chairman of the AMA Council on legislation.

"Taken as a whole, the bill should not be enacted as it would not be in the best interests of Medicare-Medicaid patients," said Dr. Beddingfield.

HEW Secretary David Mathews said he was not confident the overall bill would be as effective as its backer hoped.

One provision calls for creation of a "participating physicians" category under Medicare which physicians would either accept on assignment all Medicare cases, or none. Participating physicians would be offered certain inducements such as simplified and speeded-up billing procedures.

"The provision on 'hospital associated physicians' exceed the proper bounds of federal action," Dr. Beddingfield said. "It is not the role of the federal government to specify elements which constitute the practice of medicine generally or in any of its specialty fields. Nor should federal legislation, by statutory definition, attempt to divide or specify the role of the physician in the practice of medicine. Accordingly, the provisions as to anesthesiology services and pathology services should not be adopted."

The bill's ban on certain contractual relationships between hospitals and professionals was opposed by the AMA.

Health manpower.

House and Senate conferees have still not met to reach agreement on the crucial Health Manpower Bill.

The major issue to be resolved is federal controls over residencies. The House Manpower Bill approved last fall was stripped of a residency control feature on the floor of the House. A rigid and sweeping Senate control plan over allocation of residencies was watered down substantially on the floor of the Senate but the final Senate bill requires medical schools to set aside minimum percentages of residency programs for primary care slots.

Also important are the "payback" provisions for medical students. In this respect, the House bill is more stringent than the Senate bill. The House would require, starting in 1985, that medical students pay back, either in money or service in shortage areas, that portion of the individual student's yearly medical education subsidized by the federal government in the form of capitation subsidies to the medical schools. At present, this runs about $2,000 a year.

The comparable Senate provision requires medical schools starting in 1978 to assure that 35 percent of their first-year places are available for students who, prior to admission, have submitted applications for National Health Service Corps scholarships and have agreed to accept such scholarships.

Both bills contain provisions designed to reduce the inflow of foreign medical graduates.

The major new thrust in the two bills, in addition to the extension of capitation aid to medical schools, is to produce more physicians in the primary care category and to get more physicians into shortage areas.

Federal loans.

Students receiving federal scholarships and loans should be given a tax break, the AMA has told Congress.

Failure of Congress to continue previous exemption of such aid from taxation is proving a financial hardship on students and threatening to discourage service to the public in areas where there are shortages of medical manpower and facilities, the AMA said.

The exemption lapsed on certain student loan programs in addition to scholarship aid from the Armed Forces and the Public Health Service including the National Health Service Corps.

In a letter to the Senate Finance Committee, AMA Executive Vice President James H. Sammons, M.D., noted that with the expiration of the tax exemption, about 5,000 students in the Armed Forces Health Professions Scholarship program and about 2,700 students currently in the National Health Service Corps scholarship program are now required to pay income tax on their scholarship funds, which may include tuition, educational fees, and stipends.

Coming Meetings

CRIPPLED CHILDREN'S CLINICS
September 11 — McCook, Elks Lodge
October 9 — Grand Island, Nebraska Veterans Home
October 30 — Hartington, Trinity Lutheran Church

CANCER UPDATE FOR FAMILY PRACTITIONERS, sponsored by the American Academy of Family Practice, the American Cancer Society, the University of Nebraska College of Medicine, and Creighton University Medical School; Sept. 17, 1976, 7:00 P.M. to 10:30 P.M., at Indian Hills Ballroom, Methodist Hospital, Omaha, Nebraska. All physicians are welcome; there is no fee; it is approved for Category I credit; write to Irving Shapiro, M.D., 2020 N. 72, Omaha, Nebraska 68134.

THE AMERICAN CANCER SOCIETY AND NATIONAL CANCER INSTITUTE — National Conference on Cancer Research and Clinical Investigation at the Chase-Park Plaza Hotel in St. Louis, Missouri, September 20 through 22, 1976. T purpose of the conference is to pre important developments in basic ca research and to demonstrate the rela ship of this work to clinical investiga and to the changing concepts of optim patient care. For further information, write to: American Cancer Society, Nebraska Division, 6910 Pacific Street, Omaha, 68106.

NEBRASKA MEDICAL ASSOCIATION FALL SESSION — September 30 - October 1 & 2, 1976, Lincoln Hilton Hotel, Lincoln, Nebraska.

INTERNATIONAL FOOD ALLERGY SYMPOSIUM sponsored by the American College of Allergists, October 13-15, 1976, Four Seasons Sheraton Hotel, Toronto, Ontario, Canada. For information contact: Frances P. White, 2141 14th Street, Boulder, Colorado 80302, Tel. 303-447-8111.

44th ANNUAL POSTGRADUATE ASSEMBLY; OMAHA MID-WEST CLINICAL SOCIETY; October 25, 26 and 27, 1976; Hilton Hotel, Omaha, Nebraska. Write to: Mrs. Janet S. Noll, Executive Secretary, Omaha Mid-West Clinical Society, 540 Medical Arts Building, Omaha, Nebraska 68102.

AMERICAN MEDICAL ASSOCIATION — 30th Clinical Convention, December 4-8, 1976, Philadelphia, Pennsylvania.

NEBRASKA MEDICAL ASSOCIATION ANNUAL SESSION — May 1-4, 1977, Holiday Inn, Omaha, Nebraska.

INDIANA CHAPTER ACEP-EDNA EMERGENCY MEDICINE SEMINAR will be held at the Airport Hilton Inn, Indianapolis, Indiana on May 11 through May 14, 1977. CME Credits Applied For: 20 hours; Co-sponsor: Indiana University School of Medicine. Fee: $50.00 - $100.00. Contact: David Gettle, M.D., 10005 Hillsdale, Carmel, Indiana 46032, 317-844-7105. Note: This seminar is in conjunction with the first day of Time Trials for the Indianapolis 500 Memorial Day Race.

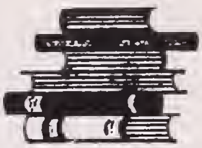
AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 18-23, 1977, San Francisco, California.

POSTGRADUATE EDUCATION FOR PEDIATRICIANS AND OBSTETRICIANS — The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate programs for pediatricians and obstetricians in the field of Maternal and Child Health and Family Planning. Program areas available at the present time include nine-month programs in Maternal and Child Health, in the Health of the School-Age Children and Youth, and Day Care and the Preschool Child. Twenty-one month programs in

Care of Handicapped Children and Comprehensive Health Care, and a thirty-three month program in Perinatology are also available. These programs all lead to the degree of Master of Public Health, and tax-exempt Fellowship support is available. Applications are now being accepted for the group entering September, 1977. For information, write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

COLONOSCOPY TRAINING PROGRAM — The New York Society for Gastrointestinal Endoscopy supported by a Cancer Control Grant from the American Cancer Society, will now offer two week training programs in the techniques of fiberoptic colonoscopy for the detection and management of colonic neoplasm to qualified physicians and surgeons. The training program will be conducted at several institutions in New York City. Preference will be given to those physicians and surgeons who have had previous experience with fiberoptic endoscopy and who are from community where fiberoptic colonoscopy is not yet readily available. Please send curriculum vitae to: Paul Sherlock, M.D., Chief Gastroenterology Service, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, New York 10021.

Books



Books reviewed.

Physician's handbook; by Marcus A. Krupp, M.D., Norman J. Sweet, M.D., Ernest Jawetz, Ph.D., M.D., Edward G. Biglieri, M.D., and Robert L. Roe, M.D.; 754 pages + two inside covers; limp cover $8.00; published 1976 by Lange Medical Publications, Los Altos, California.

The handbook seems to have appeared first in 1941, and is now in its 18th edition. There are many pages, but they are thin, and the book is designed to fit in your whitecoat pocket. There are figures and tables, and the print is good, and so is the index. The text is divided into 33 chapters. I could not find references, but it isn't that kind of a book.

It is recommended.

—F.C.

Cost-effectiveness of primary and team nursing; by Gwen Marram, R.N., Ph.D., Kathleen Flynn, R.N., M.S., Wendy Abaravich, R.N., M.S., Sheila Carey, R.N., B.S., and Albert van Servellen, D.B.A.; 91 pages, limp cover; published 1976 by Contemporary Publishing Co., Wakefield, Mass.; no price given.

Team nursing is an assemblage of auxiliary nursing staff, supervised by a qualified registered nurse, which provides for the health needs of an individual or group of patients through cooperative and collaborative efforts.

The distribution of nursing care in the primary nursing system assures that the total care of an individual patient is the responsibility of one nurse: the primary nurse.

The project was sponsored by the New England Deaconess Hospital in Boston. Its conclusion seems to be an argument for primary; and whether it is right or wrong, I liked the near-the-end answer to the nurse who asked if there was any nursing staff the patient would like to say good-bye to. The patient said I don't know any of them well enough.

—F.C.

The Letter Box

Dear Doctor Cole:

We look forward to receiving our copy of the Nebraska Medical Journal and certainly enjoy reading your editorial comments every month.

Sincerely,
Janet S. Noll
Executive Secretary
Omaha Mid-West Clinical Society

Medicinews

Medicare.

A revised schedule of limits on coverage of hospital costs under Medicare has been announced by the Department of Health, Education, and Welfare.

The new schedule applies to hospital cost report periods beginning on or after July 1, 1976, replacing the schedule now in effect. The new limits generally reflect increases in hospital costs over the past year.

The limitations are authorized by law and establish ceilings beyond which costs are deemed to be in excess of those necessary to provide efficiently delivered health services. The schedule of limits takes into account differences in hospital size and geographical location in arriving at a ceiling that can be applied to individual hospitals.

The new limits will enable HEW more effectively to identify hospitals whose costs are substantially higher than those necessary for efficient delivery of hospital inpatient services.

Talmadge on medicare costs.

In a speech on the floor of the Senate, Senator Talmadge expressed "shock" that the 1976 annual report on the Medicare Part A fund forecasts a 300% increase in the actuarial deficit in hospital funds over the next 25 years. Characterizing the costs of Medicare and Medicaid as rising in "runaway proportions," Senator Talmadge expressed the hope that the Finance Committee would be able to act promptly on his bill, S. 3205, which he characterized as being designed to ". . . bring about necessary reforms in Medicare and Medicaid administration and reimbursement." Senator Talmadge warned, however, "I want to serve notice that, as Chairman of the Subcommittee on Health, I will scrutinize with extreme care any proposed changes in Medicare which serve to increase costs and the Medicare deficit, no matter how meritorious. I know there are many worthwhile improvements which we could make in Medicare to provide better coverage for our older and disabled citizens. I, myself, have introduced and cosponsored proposals to make some of these changes. But, I would not ask any Senator to do what I would not be willing to undertake. I will, therefore, not press for consideration of any legislation which I have sponsored which would increase Medicare costs."

The Talmadge bill, the Medicare — Medicaid Administrative and Reimbursement Reform Act had been tentatively scheduled for hearings in mid-June but hearings have now been delayed until after the July Democratic Convention because of the heavy Senate schedule of currently pending legislation.

HEW & kidney failure.

The Department of Health, Education, and Welfare has published final regulations which set conditions for Medicare coverage of treatment for chronic kidney failure.

The purpose of the regulations is to help beneficiaries receive appropriate care, to encourage the best use of treatment resources, and to provide the flexibility necessary for the delivery of proper care by physicians and facilities.

Since July 1973, Medicare has covered virtually all people under age 65 who have permanent kidney failure when they need maintenance dialysis treatments or a kidney transplant. To be eligible for Medicare under the kidney disease provision of the law, a person must have worked long enough under social security or the railroad retirement system, or be the wife, husband or dependent child of such a worker.

Approximately 26,600 beneficiaries will have received treatment under the program at an annual cost of $450 million during fiscal year 1976.

Under the regulations, treatment facilities are required to join together into "networks" so as to assure coordinated patient referral and access to resources. This approach permits the concentration of equipment and specially trained personnel where they can be used most effectively. The designation of network areas is the responsibility of HEW.

Each network is required to organize itself through the establishment of a Network Coordinating Council, with representatives from all treatment facilities in the network. Through its Council, each network must establish a Medical Review Board to assess patient care and service.

Survey and certification of facilities for compliance with the conditions for coverage will be performed by state health agencies in conjunction with HEW Regional Offices under the same survey and certification process now in effect for all providers and suppliers of services under Medicare. Those kidney treatment facilities not qualifying under the regulations will be phased out in such a way as to minimize any disruption of service to the patients.

Mucocutaneous Lymph Node Syndrome in the United States — M. E. Melish et al (R. M. Hicks, Kauikeolani Children's Hosp, Honolulu 96817) Am J Dis Child 130:599-607 (June) 1976.

Sixteen patients with an unusual and distinct symptom complex were encountered during a four-year period. Principal features of this syndrome are (1) fever lasting more than seven days; (2) conjunctival injection; (3) changes in the mouth consisting of erythema of the oropharynx, "strawberry tongue," and erythema of the lips; (4) indurative edema of hands and feet with palm and sole erythema followed by desquamation of the fingertips; and (5) an erythematous rash. Associated features were lymphadenopathy, pyuria, aseptic meningitis, diarrhea, arthritis, and arthralgia. Although usually a self-limited illness, one patient died with massive coronary artery thrombosis on the 19th day of illness. This syndrome appears to be clinically and pathologically similar to mucocutaneous lymph node syndrome, an illness prevalent in Japan but previously unrecognized by American clinicians. Pathologic features suggest a relationship to infantile periarteritis nodosa.

The Reliability of Maternal Recall — R A. Hoekelman et al (Univ of Rochester, School of Medicine and Dentistry, 260 Crittenden Blvd, Rochester, NY 14642) Clin Pediatr 15: 261-265 (March) 1976.

Fifty-nine mothers were asked, when their babies were 9 months of age, to recall the baby's birth date, birth weight, last recorded weight, past illnesses, illness visits, well-baby visits, and immunization history. These responses were checked against the data recorded in the baby's clinical records to determine the accuracy of the mothers' recall. Maternal education did affect the accuracy of recall while maternal age and race, and the sex and birth order of the baby did not. Health and illness-related historic events require ongoing documentation in some easily retrievable form if they are to be relied on by physicians and medical investigators when providing care or conducting research.

"Wonder whatever happened to 'men in white'?"

ADVERTISERS' INDEX

B		**N**	
Bemidji Clinic, Ltd.	9	Norfolk Printing Co., Inc.	11
Burroughs Wellcome Company	13		
D		**P**	
Donley Medical Supply Co.	11	Pharmaceutical Manufacturers Association	22, 23
F		**R**	
Flint Laboratories	14, 15, 16	Roche Laboratories	2, 3, 27, 28, 348B, 348C, 348D
		Roerig & Co.	20, 21
H		**S**	
Hoechst-Roussel Pharmaceuticals, Inc.	5, 6, 7, 8 354A, 354B	Smith Kline & French Laboratories	19
L		**U**	
Eli Lilly and Company	24	Upjohn Company (The)	348A

Physicians' Classified

Advertisements in this column are at a rate of ten cents per word with a minimum of $4.00 per insertion. Copy must be received by the fifth of the month preceding date of publication and should not exceed 50 words. Advertisements from members of the Nebraska Medical Association will be accepted without charge for one issue. Each advertisement will be taken out following its first appearance unless otherwise instructed. Where numbers follow advertisements, replies should be addressed in care of The Nebraska Medical Journal, 1902 First National Bank Building, Lincoln, Nebraska 68508.

THE NEBRASKA AIR NATIONAL GUARD is seeking applications from physicians to fill three flight surgeon positions with the Lincoln Air National Guard Unit. Former Air Force physicians and flight surgeons are encouraged to apply. Applicants may call Sgt. Tom Tucker at 402-432-4670 Collect, for further information.

ANESTHESIA DIRECTOR (M.D.): 455 bed hospital to 705 beds in 1977 (suburban Omaha). Direct 3 anesthesiologists and 7 registered nurse anesthetists; serve on the Hospital's Medical Staff Executive Committee; 750 surgical cases per month; outpatient surgery; hospital based specialists: neonatology, pulmonary disease, cardiology, emergency medicine, pathology and radiology; affiliated education programs with two medical schools in the City (Nebraska and Creighton); guaranteed remuneration; malpractice insurance provided; candidates must be a Diplomate or eligible. Annual report and other health care corporation information available. James E. Johnson, Chief Executive Officer; Archbishop Bergan Mercy Hospital; 7500 Mercy Road; Omaha, Ne. 68124 (402) 398-6024.

TWO FAMILY PHYSICIANS with large hospital practice wish third associate, who is Board Eligible, to join busy family practice. Located in Waterloo, Iowa, a northeast Iowa community of 75,000. All records dictated on the Problem Orientated Medical Records System. Contact: Drs. Ronald D. Flory and Ronald R. Roth, 611 Black's Bldg., Waterloo, Iowa 50703.

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Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.
Contraindications: Patients with known hypersensitivity to the drug.
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.
Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.
Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido —all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.
Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.;* severe states, 20 or 25 mg *t.i.d.* or *q.i.d. Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)
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The Nebraska Medical Journal

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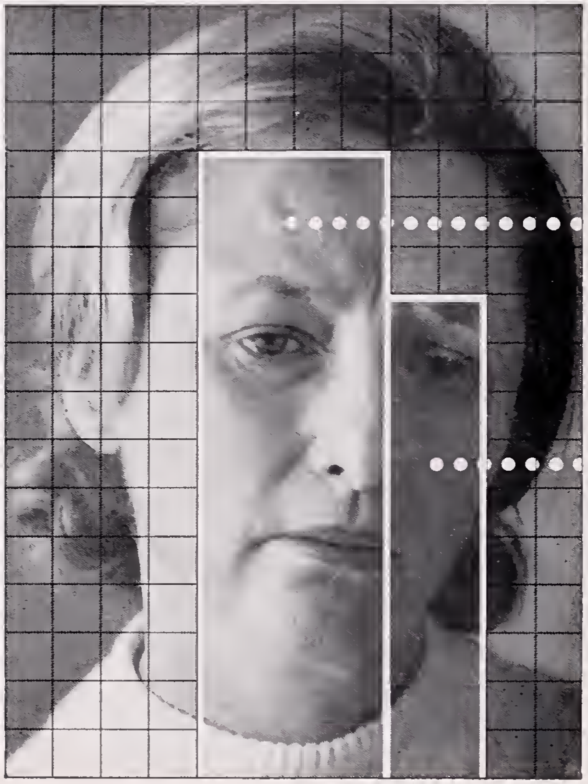
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Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful

respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as the excessive anxiety is relieved, the depressive symptoms associated with it are also often relieved.

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Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.

Valium® (diazepam) ⓘⓥ

2-mg, 5-mg, 10-mg scored tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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The Nebraska Medical Journal

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OCTOBER 1976 VOL. 61, NO. 10

EDITORIALS —

Will You Get Thin If You Walk? 361
Intensive Care 361
Keep It Short 361
The Stethoscope 362
It's Time 362

ORIGINAL ARTICLES —

Student Research Day, November 11, 1975; Abstracts. 364
Roscoe O. Van Camp
Roger Click
R. N. Gould
Fred A. McCurdy
Larry E. Banta
Randall L. Linton
Stephen P. Bruttig
Lynn A. Lavia
Jerry L. Fischer
Elizabeth Shah-Fang Chao
Helen L. Lipscomb

Colonoscopic Polypectomy — Initial Experience, Part I 370
Joseph E. Stitcher, M.D.
David R. Dyke, M.D.
O. R. Hayes, M.D.
Linda Jacobs, B.S.

Malpractice — What Is It?, Part II 374
Rose Fidelis Faithe, M.D., J.D.

A Retrograde Transverse Sinus Radionuclide Venogram: A Case Report 378
John F. Aita, M.D.

Exercise in the Patient With Ischemic Heart Disease 381
J. W. Holsinger, M.D., Ph.D.
V. F. Miscia, M.D.

Asymptomatic Obstructive Airway Defect — An Analysis of Causal Factors. A Study Involving 425 Nebraskans, Part I 385
Irving Kass, M.D., F.A.C.P.
Kashinath D. Patil, Ph.D.
Herbert Rubin, B.S., C.C.T.
Mark D. Kass, B.A.

Sideroblastic Anemias 389
James R. Lohse, B.S.
James O. Armitage, M.D.
Malcolm T. Foster, Jr., M.D.

DOWN MEMORY LANE 393

FEATURES —

President's Page 394
The Auxiliary 395

IN MEMORIAM 396
Dr. William T. Hughes
Dr. Ray O. Hummel
Dr. Ruth A. Warner
Dr. Arnold I. Webman

BETWEEN CASES 397

NEBRASKA —

Our Medical Schools 398
State Organizations 14A

ALL THE STATES —

WashingtoNotes 399
Coming Meetings 400
National Organizations 8A

AROUND THE WORLD —

Books 402
Medicinews 403

Address all correspondence relating to subscriptions, advertising or address changes to Mr. Ken Neff, Business Manager, 1902 First National Bank Building, Lincoln, Nebraska 68508 Phone: [402] 432-7585.

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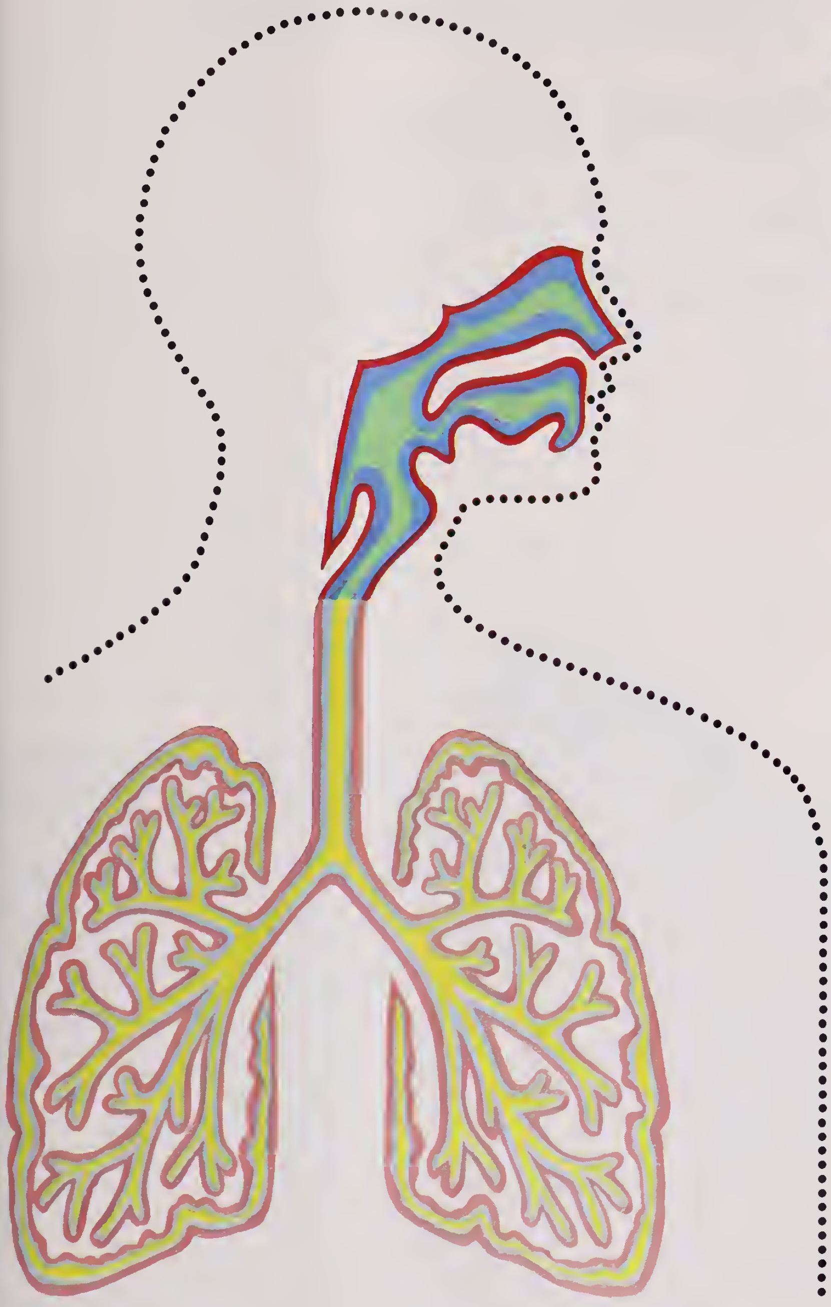

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ADVERSE REACTIONS: Drowsiness and dryness of the mouth are occasionally associated with antihistamine therapy in some individuals.

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RYNATUSS TABLETS: Adults — 1 to 2 tablets every 12 hours.

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The above represents a brief summary. See package inserts for full prescribing information.

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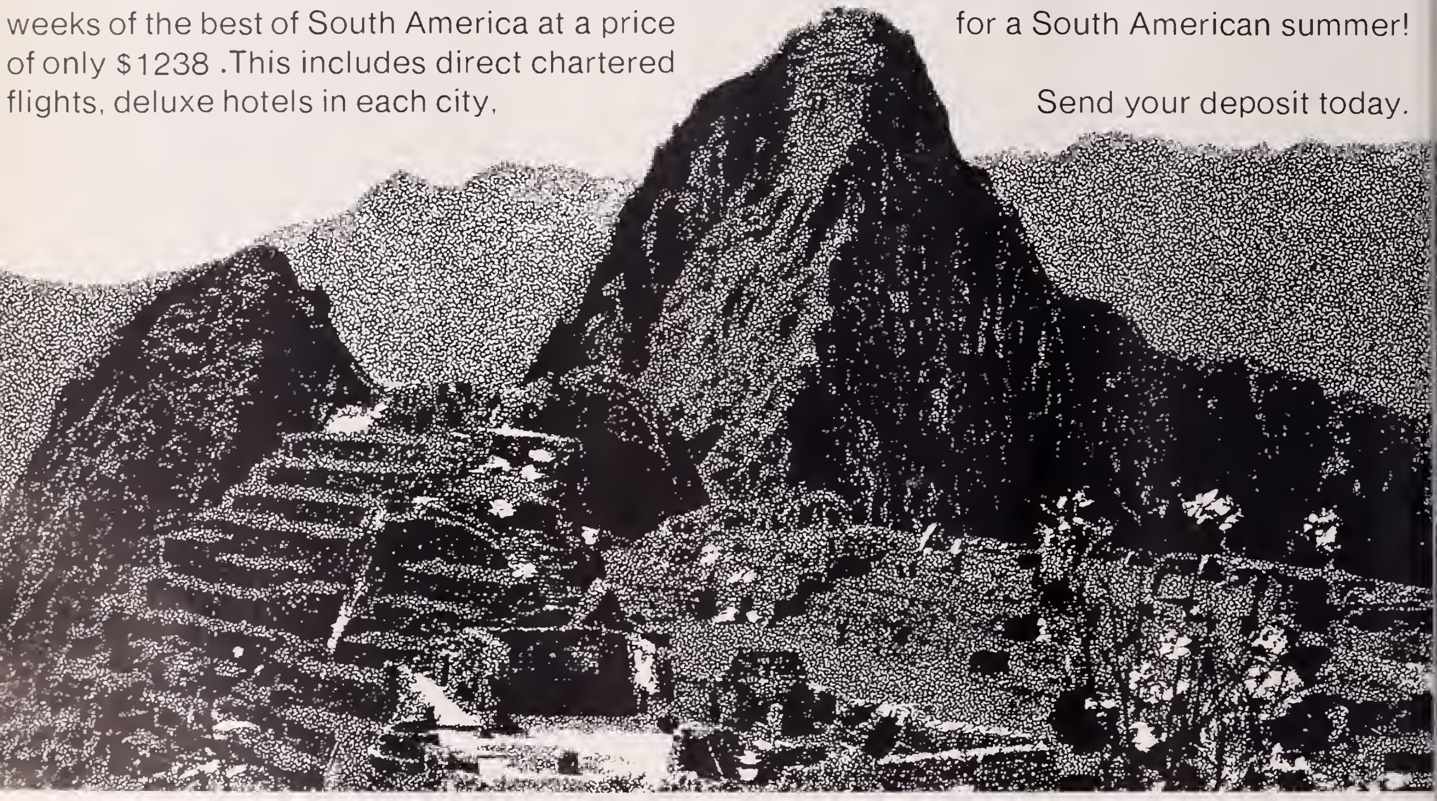

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Osteoporosis — A Disorder of Mineral Nutrition

Recent evidence suggests that long-term calcium inadequacy may contribute to the development of osteoporosis in later life. Osteoporosis can lead to bone demineralization and afflicts millions of Americans today mostly women. Disturbances in the protein, mineral and or hormonal aspects of bone metabolism have been implicated as causative factors. When detectable by x-ray, osteoporosis represents a loss of from 25 to 50 percent of bone calcium.

Current studies suggest that a diet which lacks adequate calcium over several years may contribute to the development of osteoporosis in later life. Osteoporosis has been found to occur much more frequently in elderly patients who have become accustomed to a low calcium intake than in those with a high level of calcium consumption. Metabolic, histologic and radioactive tracer turnover studies have demonstrated that increased bone resorption due to a deficiency of calcium in the metabolic pool is a prominent feature of human osteoporosis.

During adolescence, calcium requirements are high and intake often below recommended allowances. In adolescence and adulthood, as in infancy and childhood, the building and maintenance of well-mineralized bone is facilitated by a calcium intake commensurate with needs. Milk is the prime source of calcium in the daily diet, supplying 1.22 grams per quart. Milk sugar (lactose) also may have a stimulating effect on calcium absorption.

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Ascorbic Acid-Induced Uricosuria — H. B. Stein et al (I. H. Fox, Wellesley Hosp, Toronto) Ann Intern Med 84:385-388 (April) 1976.

The effect of ascorbic acid on the serum and urinary uric acid was studied in 14 persons. Two to six hours after the ingestion of 4.0 gm of ascorbic acid, the fractional clearance of uric acid increased to 202% + 41% of the control value. This uricosuria was inhibited by pyrazinamide and by low-dose acetylsalicylic acid, but was not accompanied by an increase of the creatinine clearance. Ascorbic acid did not diminish protein-bound uric acid. In three persons who ingested 8.0 gm of ascorbic acid for three to seven days, the serum uric acid decreased by 1.2 to 3.1 mg/dl as a result of a sustained uricosuria. Ascorbic acid could invalidate studies involving the measurement of uric acid and obscure the diagnosis of gout in some cases. Theoretically it could precipitate attacks of gouty arthritis or renal calculi in predisposed persons. These observations show a pharmacologic effect of megadoses of a simple vitamin.

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The Editor of this Journal assumes no responsibility for opinions and claims expressed in the articles published herein.

Manuscripts to be presented for publication in the JOURNAL should be typewritten, double-spaced, on one side only of firm (not onion skin or flimsy), standard letter size (8½ by 11 in.) white paper. Wide margins (at least 1¼ in. on left) should be left free of typing. On the first or title-page should be shown the title of the article, the name (or names) of the author, his degree and other significant credits. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

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Manuscripts (original, not a carbon) should be sent directly to the Editor at the **Journal's** address.

Letters to the Editor submitted for publication should be prepared as above, and must carry the notation: To be Published.

Reprints should be ordered from the printer, Norfolk Printing Co., Inc., P. O. Box 278, Norfolk, Nebr. 68701.

The Influence of Aspirin on the Course of Induced Midtrimester Abortion — J. R. Niebyl et al (The Johns Hopkins Hosp, Baltimore 21205) Am J Obstet Gynecol 124:607-610 (March 15) 1976.

Prostaglandins appear to mediate the uterine contractions of abortion and labor, and aspirin has been shown to be an inhibitor of prostaglandin synthesis. In this double-blind placebo-controlled, prospective, and randomized study, aspirin was administered orally in doses of 600 mg every six hours to patients undergoing induced midtrimester abortions with hyperosmolar urea and oxytocin augmentation. The mean injection-abortion interval was substantially prolonged by aspirin in nulliparous patients (Aspirin 32.3 ± 3.3 hours vs placebo 21.5 ± 3.5 hours) and no aspirin-treated nullipara aborted in less than 18 hours. There was no important difference between treatment groups in the mean injection-abortion interval in the multiparous patients at the dose of aspirin used. The effectiveness of aspirin in the prolongation of the injection-abortion interval has potential therapeutic implacations for the treatment of premature labor.

Mental Symptoms in Parkinson Disease During Chronic Treatment With Levodopa — R. D. Sweet et al (New York Hosp, New York 10021) Neurology 26:305-310 (April) 1976.

Mental symptoms have increased in frequency among 100 patients treated with levodopa for parkinsonism. Dementia was found in about one third of patients throughout the six-year treatment period. Thirteen patients became demented during the study and dementia worsened severely in seven others. Agitated confusion became increasingly frequent and involved 60% of patients taking levodopa for six years. Withdrawal from levodopa therapy decreased agitation, but not dementia. L-Trytophan was given with levodopa to ten patients but no change in mentation was found. The high incidence of dementia in patients with Parkinson disease who take levodopa reflects prolongation of the course of the illness rather than a direct effect of the medication.

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diuretic therapy for
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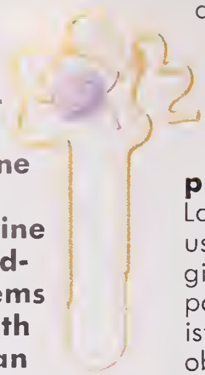

The Lasix® site of action is a distinctive advantage—for it results in fewer electrolytes in each liter of urine than with other commonly used diuretics.[1,2] That is why, if you control urine volume through individual dosage adjustment, you may face fewer problems with electrolyte disturbances.[3] As with any diuretic, electrolyte depletion can occur during therapy with furosemide. Careful clinical and laboratory observations are advisable.

The primary site of Lasix® action—at the loop of Henle—distinguishes Lasix from other commonly used diuretics. The action at this site enables Lasix to produce a dilute urine,[4] which may be the basis for its relative freedom from electrolyte disturbances (hypokalemia).[3] When the edematous patient has been stabilized, excessive diuresis can usually be avoided by simple dosage adjustment. And, through regulation of urine volume by this dosa adjustment, you can control electrolyte excretio Careful medical supervision is required.

Wide dose-related effectiveness for precise control of diuretic response. The Lasix® effect is dose-related. A prompt diuresis usually ensues with a single dose of 20 to 80 mg, given preferably in the morning. Depending on th patient's response, a second dose may be administered 6 to 8 hours later. Clinical and laboratory observations are advisable when doses exceeding 80 mg/day are given for prolonged periods. Whe maintenance of the edema-free state is desired, dosage may be adjusted to as low as 20 mg.

(Please see the dosage and administration section on the last page of this advertisement.)

Highly effective/short acting. The effectiveness of Lasix® has been clearly establishe in hundreds of thousands of patients in a decade o clinical experience. Consequently, Lasix is the most selected diuretic agent today in the treatmen of edemas associated with congestive heart failur

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LASIX® (FUROSEMIDE)

the diuretic for both initial & maintenance therapy in cardiac edema

The onset of diuresis usually occurs within an hour and is usually complete within 6 to 8 hours; thus, patient inconvenience is minimized.

Useful in patients with renal impairment and severely depressed renal function. Unlike other commonly used diuretics, Lasix® can be useful in patients with renal impairment and severely depressed renal function. Even in the presence of renal insufficiency with depressed glomerular filtration, acidosis, alkalosis or hypoalbuminemia, Lasix has been found effective and well tolerated.[5] If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued.

(See next page for prescribing information.)

References: 1. Peltola, P.: Furosemide (Lasix®) as a diuretic, *Acta Medica Scandinavica, 177*:6, 1965. **2.** Mudge, G.H., in Goodman, L.S. and Gilman, A. (eds.), The Pharmacological Basis of Therapeutics, 4th ed., 1970, p. 852. **3.** Manner, R.J., Brechbill, D.O., and DeWitt, Karen: Prevalence of hypokalemia in diuretic therapy, *Clin. Med.* 79:19, November 1972. **4.** Schrier, R.W., *et al.*: Effect of furosemide on free water excretion in edematous patients with hyponatremia, *Kidney Int.* 3:30, 1973. **5.** Muth, R.G.: Diuretic response to furosemide in the presence of renal insufficiency, *J.A.M.A. 195*:1066, March 1966.

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A brief summary of the Prescribing Information for

Lasix® (furosemide) Tablets 20 mg and 40 mg

WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO_2 and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperuricemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering curare or its derivatives to patients undergoing therapy with Lasix (furosemide), and it is advisable to discontinue Lasix (furosemide) for one week prior to any elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticaria and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, or diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (with purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported; however, relationship to the drug has not been established with certainty: sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinary frequency.

Dosage and Administration

ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as a single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individually determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day in those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged periods, careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent as soon as Lasix (furosemide) is added to the regimen to prevent excessive drop in blood pressure. As the blood pressure falls under the potentiating effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infants and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white, round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information

Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD$_{50}$ of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD$_{50}$ ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD$_{50}$ of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often became dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of the drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in rats and dogs. In a one-year study in rats, renal tubular degeneration occurred, with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed calcification and scarring of the renal parenchyma at all doses above 10 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 17 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused maternal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate fetal lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of the renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.

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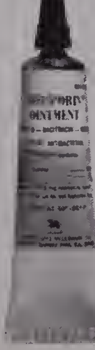
Prophylactically, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing. **CONTRAINDICATIONS:** Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components. **WARNING:** Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended. **PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs. **ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



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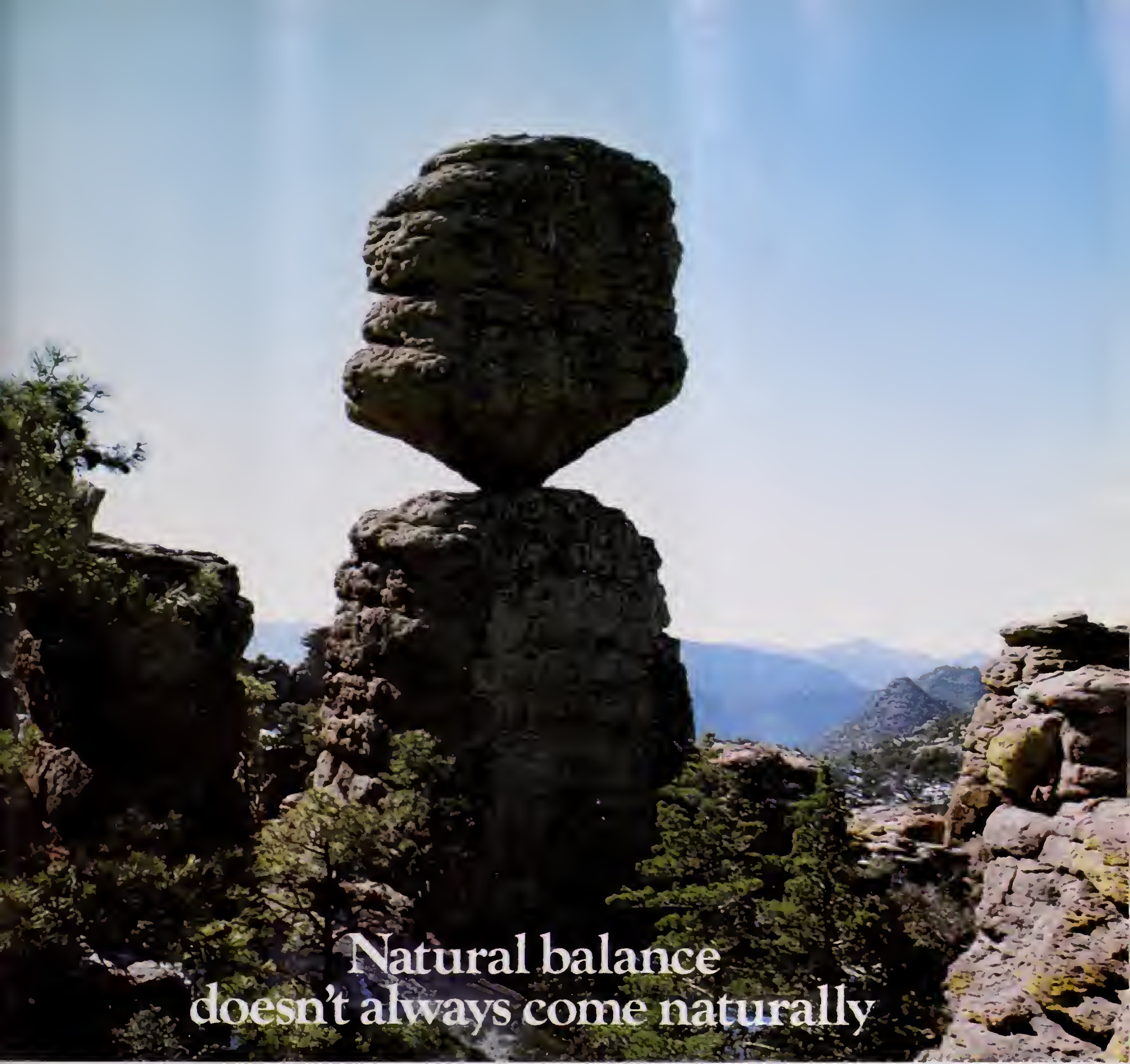

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- **Dosage for Vertigo***—The usual adult dosage for Antivert/25 s one tablet t.i.d.

RIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

ROERIG Pfizer

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New York, New York 10017

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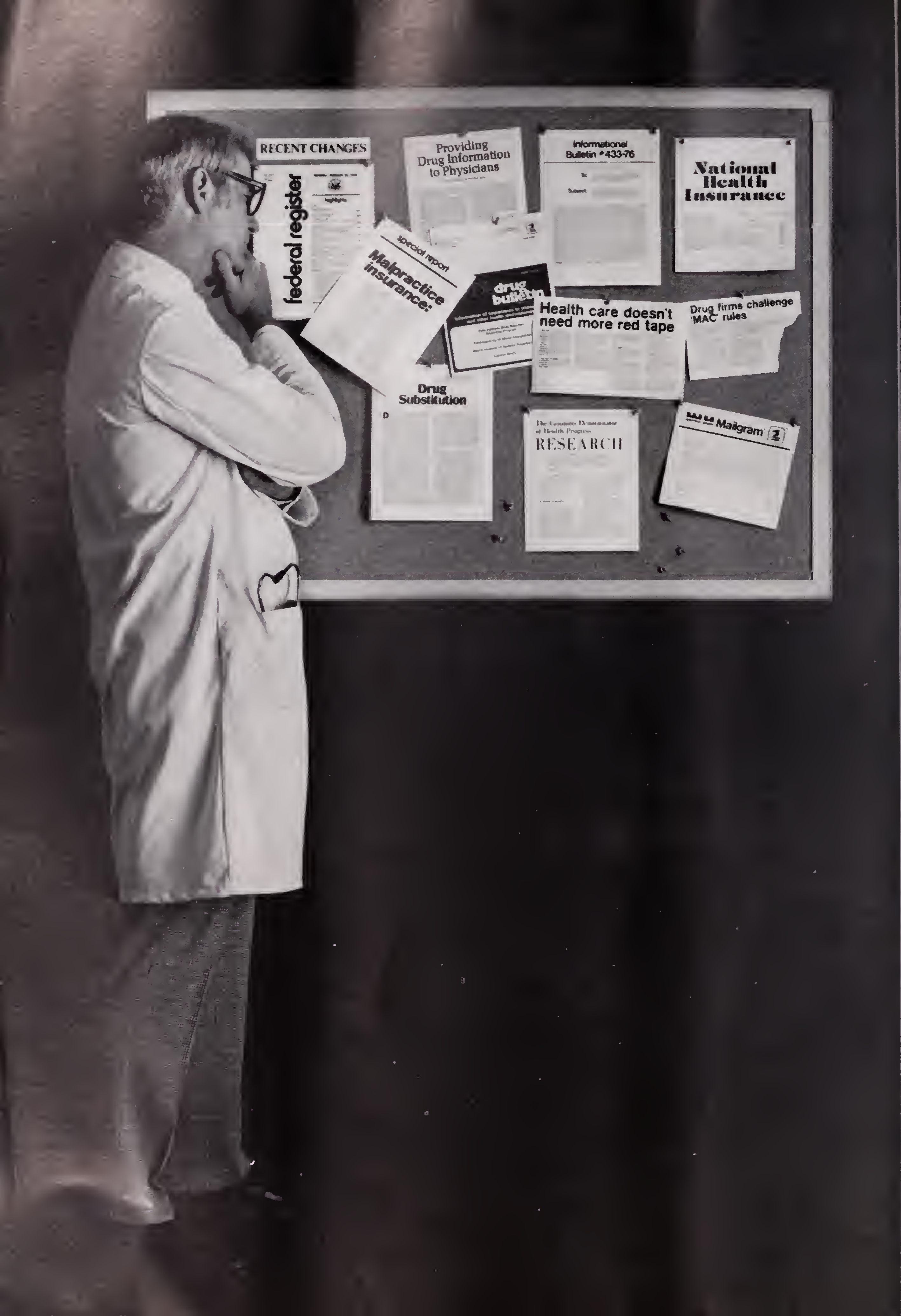
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Drug substitution In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent, generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than $1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

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Cervical Spine Injuries — J. L. Babcock (Indiana Univ School of Medicine, Indianapolis 46202) Arch Surg 111:646-651 (June) 1976.

Roentgenographic techniques in the evaluation of the patient with a cervical spine injury entail several considerations that should be respected in defining and classifying the lesion according to the mechanism of injury. Unilateral or bilateral facet dislocation with separation of posterior elements usually implies disruptive flexion injury. Anterior wedging of a vertebral body indicates flexion with some degree of compression. Comminution of the vertebral body indicates a predominant compressive element to the injury. An anterior-inferior marginal fracture indicates extension injury. Impaction of the inferior articulating processes or fracture of the pedicle producing a more horizontal appearance of the facet indicates disruption of interspinous ligaments and the probability that significant instability exists. Studies should not be terminated until complete visualization of all cervical segments has been obtained, including the cervicothoracic junction.

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Aphasia in Acute Stroke — J. C. M. Brust et al (Harlem Hosp Center, 135th St and Lenox Ave, New York 10037) Stroke 7:167-174 (March-April) 1976.

Previous surveys of stroke populations have offered only cursory information on language disturbance, and, conversely, few surveys of aphasic populations have dealt exclusively with stroke or with acute phenomena. This study describes aphasia in 850 patients with acute stroke consecutively registered by the Harlem Regional Stroke Program, of whom 177 (21%) were aphasic; of these, 9 were Broca type, 24 were Wernicke type, 14 were anomic, 10 were conduction, 7 were of "isolation" type, and 107 were "mixed." An unexpected finding was a substantial overrepresentation of men among the nonfluent aphasics. During the following 4 to 12 weeks, 12% of fluent aphasics died, and 12% remained moderately or severely impaired, among survivors, aphasia improved in 74%, and in 44% it cleared completely. During the same period, 32% of nonfluent aphasics died, and 34% remained moderately or severely impaired; among survivors, aphasia improved in 52%, and in only 13% did it clear completely.

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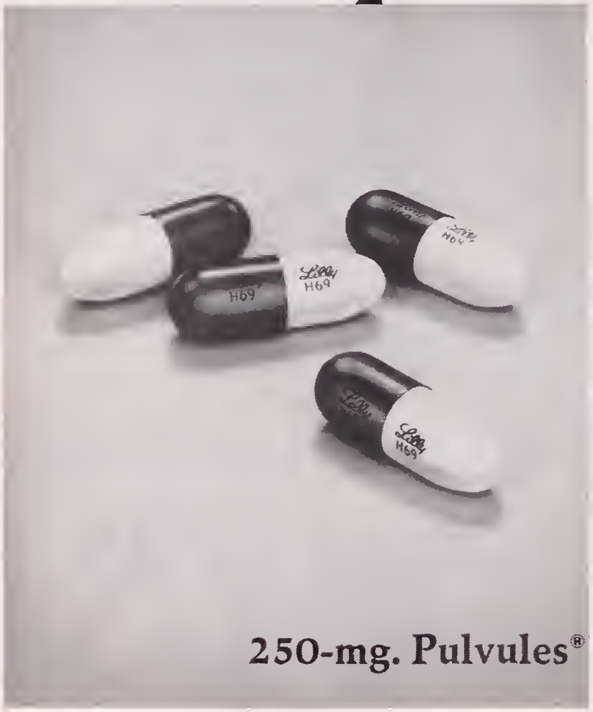

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THE NEBRASKA MEDICAL JOURNAL

WILL YOU GET THIN IF YOU WALK?

My favorite form of exercise is eating; it involves sitting, cutting meat and potatoes, lifting large portions of food to my mouth, chewing, swallowing, and getting up after all that strenuous workout. But while I do this as often as I can, my weight is stable, and I have been given over to walking. In this connection, I have for some time been putting away scraps of information that has to do with walking and losing weight.

One study said you must walk 14 hours to use up one pound of fat. Another said you will lose a pound if you walk 20 miles. Someone reported that if you walk 36 hours you will get rid of one pound of fat. And another stated that a reduction of 500 calories daily will reduce your weight by one pound a week if you maintain the same physical activity.

If you walk five miles briskly every day, one author wrote, you will use up 400 calories, and you will lose one pound in 10 days, or 36 pounds in a year. Elsewhere, I have read that it takes a 3,500 caloric loss to shed one pound, that you must walk 25 miles to lose a pound, and that an hour's brisk walk daily can help you to lose a pound of weight in ten days. Someone else said walk 28 miles to lose a pound.

I walk four miles an hour, and after a long brisk walk, I come home hungry and you can guess what happens to all those theories. There must be some sense to all of this, but it eludes me. I think if you walk briskly and do not eat afterward, you may lose weight, but I think you will only lose a constant percentage of your starting weight, and the number of pounds you lose will get less and less.

I have averaged all of these figures, and assuming that you walk 3½ miles an hour when you walk briskly, I think they are all saying that you must walk 12 hours or about 40 miles to lose a pound.

Now, if you do this every week, you will lose 52 pounds in a year, and at the end of ten years you will be airborne.

—F.C.

INTENSIVE CARE

I find myself going back and forth in my reading from Job's Boils to Fowler's Usage, done over by Gowers, who boasts some sort of connection with the tract. And I have pored over differences between words that look alike but are not the same, coming to intense and intensive, and so to Churchill's famous question: *Why must you write intensive here? Intense is the right word.*

In an intensive bombardment, the fire converges on a narrow target. But if it is intense, it is simply considerable, or large, or heavy; and that is why the Prime Minister wrote his peevish question, but he was right, and he advised the Director of Military Operations to look it up.

You may want to argue the point, but it is a *fait accompli* if it is not to be dislodged. The care is intense, but if there is more than a single patient, it is not intensive.

And I suggest, before it is too late, that we bring ourselves to say intense care instead of intensive care. Intense is right, and intensive is wrong, and intensive care carries with it the unfortunate pun that suggests that this kind of care is expensive, while intense care does not lend itself to this criticism.

If the care is intensive, it seems to mean that only one person got it, like Job, and not simply that it was considerable. If it is intense, the patient's friends, if they enjoy any familiarity with words, will feel better. And if the care is intense, the patient will do better, and may even get well. Job did, but then he was in intense care, too.

Say *intense care*; it sounds better, and it's right.

—F.C.

KEEP IT SHORT

Except for baseball averages, there is only a hundred percent of everything, and this is true for that model of healing-art publications, the Nebraska Medical Journal. That is, there is just so much you can squeeze into it.

So I ask authors who send manuscripts to this office to shorten their articles. It will make their writing more readable; more browsers will begin and even more will finish. Good writing is made up of little words, and editors are fond of saying that half as long is twice as good.

It will make the article more attractive to the editor and warm the cockles of his hard New England heart into accepting what he might have refused. And it will make more pages of the Journal available to authors and will directly improve the chance of having your own manuscript accepted, since more articles can be printed if they are short.

I once published an essay asking for one-page articles; I did not quite succeed, and I will settle for two, but neither readers nor editors warm up to anything that goes over *three.*

Your chance is greater here and elsewhere, too, if you keep it short.

—F.C.

THE STETHOSCOPE

The stethoscope is surely a strange device. Its name means chest examiner, but so is the x-ray. And the stethoscope can be used elsewhere, as on the belly, and for uterine and fetal sounds, and for arterial and venous ones, too. It is not an easy word to spell, and you have to remember if an e or an o comes before the scope. It was originally a rolled-up paper cylinder and later a wooden one, and it was applied to only one ear and to shy females.

But how good is it? I have noticed that when internists want very much to know what is going on in the chest, they order an x-ray. And radiologists say one look is worth a thousand listens. Of course, you cannot carry an x-ray machine with you whenever you examine patients, but how much can you really tell with a stethoscope? It may be that our predecessors were cleverer than we, since they had to do without x-ray. But maybe, since it was all they had, they thought it was better than it really was, especially since their stethoscopes were not as good as ours.

I wonder about percussion, too, is it a lost art? And is the stethoscope only a symbol of our profession, like the caduceus, whose snake-number we are not sure of, and the head-mirror, which most of us do not use?

It's good for heart sounds but there is the EKG, and the x-ray, again. I have suggested to my surgical friends that they can best use the stethoscope by putting its rubber tubing down sick people's stomachs. It's a nice thing to carry around and to have sticking out of your pocket, or to hold in your hand, and especially to wear around your neck; that makes you look like a doctor.

—F.C.

IT'S TIME

In the United Kingdom surgeons do simple mastectomy largely, I have read. Two discussants replied to an author who advocated modified radical surgery for cancer of the breast, saying that they thought radical was better. One well-known surgeon argues for modified radical. Doctors I know prefer to do radical mastectomy. Some surgeons do modified radicals in most cases.

Individualising patients is not a satisfying answer; it is no better to individualise doctors. Out of thousands of cases, many will be alike, and all can be put into boxes and will easily fit in four-place tables. After considering the variables, as quadrants, size, delay, nodes, and biopsy, we are finally left with surgeons. And presented with the same patients, one will do simple, another radical, and a third modified radical.

If we insist on agreeing, is it regimentation? I do not think so. And if we do not agree? I think we should. It is time. We have counted cases long enough to know if radical is proper or needless, if modified is as good, and if simple will do.

Has removing pectoral muscles gone out of style? Were Halsted's patients incurable? Is muscle excision wise, or is it safe to leave them? Is radical morbidity high, and is, say, a one-percent higher mortality a fair exchange for an escape from morbidity?

Is it proper that Cleveland does one thing and London another; that New York practices one way while Boston disagrees? Do San Francisco and Rochester treat breast cancer differently? Should the other breast come out?

Why do we not know what operation is best? Don't say no two cases are alike, they are: it is we who are not alike. Cannot we decide?

I think it's time.

—F.C.

Student Research Day, November 11, 1975; Abstracts.

Michael Covalciuc
Medical Student,
General Chairman

ELECTRONIC STRUCTURE OF 3-INDOL ACETIC ACID, **Roscoe O. Van Camp**, Craig J. Eckhardt, Lawerence J. Parkhurst, the University of Nebraska, Lincoln, Nebraska.

This study assigned transition vectors in space as they relate to the molecular plane and axis of the indol ring.

Spectra were taken using a reflecting microspectometer and polarized monochromatic light between 280 and 350 nm. Four sets of spectra were taken, one along each of the two principal directions in the (100) and (010) planes of the monoclinic crystal. The spectra were ratiod against a frount surface aluminum mirror for internal reference.

The reflection spectra were averaged, converted into absorption spectra using the Kramers-Kronig transformation, and each peak was deconvoluted and integrated. The experimental dichroic ratio was determined by the ratio of the same peak in the two principal directions. The theoretical dichroic ratio curve is the ratio of the sine to the cosine of the molecular angle related to the principal direction of the crystal. This produces a smooth iterative function.

Therefore, the angle of projection of the electronic vector on each plane can be extrapolated from the theoritical dichroic ratio curve using the experimental values.

		AREA		D.R.	
PLANE	P.D.	^1L_a	^1L_b	^1L_a	^1L_b
(010)	X	5.618	24.148	.9984	1.981
(010)	Y	5.627	12.189		
(100)	X	10.527	42.995	1.810	1.181
(100)	Y	5.814	36.406		

Extrapolation from the (010) plane assigns ^1L_a at 19° and ^1L_b at 44° while the (100) plane showed angles of 21° and 38° respectively. The agreement of these two molecular planes fixed the orientation of the electronic vector at ^1L_a at 20° and ^1L_b at 41°

Roger Click

MICROVASCULAR RESPONSE TO NOREPINEPHRINE IN HYPERTENSIVE HAMSTERS. **Roger Click**, University of Nebraska Medical Center, Omaha, Nebraska.

The role of the peripheral microcirculation in the development and maintenance of hypertension (HT) is still an open question. Many theories such as increased responsiveness of vessels to vasoconstrictor (VC) agents and wall to lumen (w/l) alterations have been postulated as causative mechanisms for HT. The purpose of this investigation is to compare the effects of norepinephrine (NE) on cheek pouch vasculature of normal vs. hamsters with induced renal HT. Following the establishment of baseline blood pressures (88-137 mm Hg), doses of NE (.5-1000 ng) were micropipetted in 3.35 μl volumes at arteriole and venular sites. A Vickers image shearer was used to measure w/1 ratios prior to drug application as well as lumen diameters which were continuously followed during the response. Data was expressed as the changing lumen diameter (E) vs. initial lumen diameter (C). The maximum response (Rm = Em/C) for each dose of NE was used as controls. After drug testing, bilateral Grollman surgery, inducing renal ischemia, was performed. Sham operated animals were also used as controls. At 2-3 weeks following surgery, arterial pressures were elevated (170-200 mm Hg) in the Grollman animals but were normal (90-120 mm Hg) in the sham operated. At this time NE was again tested and compared in both groups. The data indicates that the Rm of arterioles is increased in HT hamsters compared to normal and sham operated. There appears to be no difference in venular response or w/1 ratios of HT hamster vs. controls. Our data in this HT model supports the theory of increased responsiveness of arterioles to VC agents. This increased responsiveness may relate to an overall increase in tone of the peripheral circulation helping maintain the elevated pressures. With increased arterial resistance capillary pressure may fall. A homeostatic increase in venule resistance may be the reason we do not see an increase in venular responsiveness. Increased w/1 ratios reported in other HT models are not seen with our measurements, but this could be due to the fact that measurements were made in the early phase of hypertension.

T CELL/B RATIO IN THE HUMAN: A COMPARISON OF PHA STIMULATION AND ROSETTING TECHNIQUES,

R. N. Gould and W. K. Metcalf, University of Nebraska Medical Center, Omaha, Nebraska.

The recent challenge to the specificity of PHA responsiveness as an identifier of T cells by Chess et al., has led us to test the PHA response as an indentifier of T cells against Wybran's spontaneous sheep erythrocyte rosetting test in the human. For the results to be valid, it was essential that effectively 100% of the lymphocytes could be recovered from the peripheral blood sample. To this end, we adapted Boyum's technique using ficoll hypaque. In our hands this procedure yields over 95% of the lymphocytes in the original blood sample with a purity of better than 95%. By this means pure lymphocyte suspensions were obtained from 100 ml heparinized blood samples from normal volunteer human donors. Multiple cultures with and without PHA were set up and incubated at 37°C. Cultures were terminated immediately, after 24, 48, 72 and 96 hours, and evaluated for PHA stimulation rate by morphological means and simultaneously by Wybran's technique for both total and active sheep red cell rosetting. In the control cultures, those without PHA, the percentage of cells that showed both active and total T cell rosettes, remained constant for the four days of culture. In the PHA cultures the ratio of rosetting to non-rosetting PHA responding cells did not differ significantly from the ratio of rosetting and non-rosetting non-PHA responding cells; nor did this ratio differ significantly from that in the control cultures. By the fourth day of culture, further PHA lymphocyte transformation is negligible. At this time, 20% of the non-responding small lymphocytes (presumed B cells) form rosettes with sheep erythrocytes; while approximately 50% of the blastoid cells (presumed T cells) do not rosette. We can only conclude either that the rosetting technique is not valid in PHA cultures, or that sheep red cell rosetting and PHA stimulation are identifying different overlapping populations of cells. We prefer the latter hypothesis on the basis that PHA stimulates more than 90% of the circulating blood lymphocytes.

ADOPTIVE TUMOR IMMUNOTHERAPY: ALTERATIONS BY C-AMP,

Fred A. McCurdy and P. G. Rigby, Univ. of Nebr. Coll. of Med., Omaha, Neb.

Today, cancer immunotherapy is a controversial but developing field; the evidence for

Fred A. McCurdy

intervention with immunologic alterations in cancer patients is growing (Biano, 1975). Central to any immunotherapeutic intervention is the use or effect on lymphocytes (Morton, 1973). It has been shown that lymphocytes from immunized donors can transfer specific immunity to compatible recipients (Biano, 1975), and lymphocytes from non-immune donors can reconstitute immunodeficient recipients (Dehamer and Goodman, 1973).

A series of experiments was conducted on C3H mice bearing the 6C3HEDOG lymphosarcoma (LT) to compare the effectiveness of pooled thymus and bone marrow cells transferred from normal animals or animals "immunized" against LT, exploring possible alterations by C-AMP added at different steps of the experiment. "Non-immune thymus" and bone marrow cells, given together on day 2 after LT, prolonged the survival of LT animals 5.0 ± 1.7 days beyond the LT only controls ($p < 0.005$). Giving 3.0μ mols of C-AMP/animal **in vivo** on days 4, 6, and 8 after LT had no effect on survival in these experiments. "Immune" thymus and bone marrow cells given on day 2 were not effective alone but were after incubation **in vitro** at 37°C for 2 hours with 10^{-7}M C-AMP. The survival was then increased 4.0 ± 0 days beyond control ($p < 0.005$).

This data demonstrates that the life span of tumor challenged animals can be prolonged by transfer of lymphocytes from non-immune donors and by C-AMP treated lymphocytes from "immune" donors, while "immune" lymphocytes, by themselves, are ineffective. It is suggested that C-AMP may be inducing an immunopotentiating effect that would otherwise be suppressed, presumably by exposure to tumor or tumor antigens.

PURIFICATION AND CHARACTERIZATION OF A METHIONYL TRANSFER RNA^{metf} DEACYLASE FROM RABBIT RETICULOCYTES, **Larry E. Banta** and Naba K. Gupta, The University of Nebraska Medical Center, Omaha, Nebraska.

The $0.5\underline{M}$ KC1 wash of rabbit reticulocyte ribosomes has been shown to contain an inhibitor of the initiation process of mammalian protein synthesis reconstituted system. The inhibition appeared to be due to the presence of a deacylase specific for the initiator tRNA (mettRNA^{metf}). The enzyme was further purified by DEAE cellulose column chromatography, 40-60% ammonium sulfate precipitation, hydroxyapatite and sephadex column chromatography. The enzyme activity was assayed using pure **E. coli** 35S met -tRNA ^{metf}. IF-1 binding assays were carried out using reticulocyte crude tRNA charged with 35S methionine by **E. coli** synthetase. The purified enzyme demonstrated 3 electrophorectic bands (SDS acrylamide gel electrophoresis), a molecular weight of approximately 80,000 daltons by sephadex chromatography. Michaelis-Menton kinetics were observed and an approximate value of $1.6 \text{x} 10^{-6}\underline{M}$ was obtained for the Km.

Deacylase appears to be involved in the control of the initiation process or in the

Larry E. Banta

control of the methionine pool. It is inhibited by free mRNA or tRNA, the latter exerting the greater effect, and is much less effective when the met-tRNA^{metf} is bound to IF-1 and GTP in the initiator complex.

Randall L. Linton

CONGENITAL CORONARY ARTERY FISTULA, **Randall L. Linton**, Harold J. Kuehn and William K. Metcalf, University of Nebraska Medical Center, Omaha, Nebraska.

Congenital coronary artery fistulae prove to be troublesome medical problems both in an embryological explanation for their existence and clinical criteria for their diagnosis. Previous studies have shown an overwhelming predominance of fistulae entering the right heart which challenges one to postulate a lacking developmental explanation. A clinical study of 8 new cases of congenital coronary artery fistulae challenges the generally reported concept that a coronary artery fistula murmur must be continuous in nature. This contradiction further supports the belief that auscultation, physical symptoms and ECG results are insufficient criteria in themselves for the formation of a definitive diagnosis therefore stressing the need for invasive cardiac catheterization.

MODIFIED LAVER METHOD FOR OXYGEN DISSOCIATION CURVE ANALYSIS, **Stephen P. Bruttig**, University of Nebraska Medical Center, Omaha, Nebraska.

Stephen P. Bruttig

The dissociation of oxygen from blood is best described by a system that measures or controls all variables associated with the oxyhemoglobin dissociation process. With the exception that it disregards the effect of 2, 3-DPG on transcellular H^+ concentration gradients, the method of Laver closely approximates this ideal system. This method utilizes a dissociation curve analyzer which continuously records gas and liquid phase pO_2 and pH, while maintaining temperature and pCO_2 constant. The output is a pair of curves describing the association process of unsaturated hemoglobin with O_2; i.e. plots of ΔpH and Δ gas phase pO_2 as functions of increasing liquid phase pO_2. From these curves, P_{50} (P_{50L}), the characteristic parameter of the oxygen dissociation curve, is calculated. Features which limit the clinical usefulness of this system include cost of apparatus, occasional instability of the gas phase pO_2 electrode, time of procedure, method for calculation of P_{50} and sample size (8.0 ml). Calculation of P_{50} by a modification of this method (P_{50M}) utilizes only the functional relationship between increasing liquid phase pO_2 and decreasing pH. Since this curve is continuous, all points from desaturation to saturation are plotted and P_{50M} is easily calculated. When P_{50}'s obtained by both methods are subjected to linear regression analysis, P_{50M} correlates well with P_{50L} in man ($n = 197$), dog ($n = 19$) and rat ($n = 10$). For man, the least squares regression equation is $P_{50L} = 2.145 + 0.903 (P_{50M})$, with $r = 0.923$. Human P_{50M} (at normal values for P_{50}, 2, 3-DPG, pH, hematocrit, hemoglobin content and MCHC) correlates well with P_{50L}. When human P_{50} values are statistically partitioned to test extreme (high or low) **in vivo** values of these variables, known to effect P_{50}, the positive correlation between P_{50M} and P_{50L} remains. Thus, P_{50M} (pH vs. pO_2) can be considered to be as accurate an assessment of P_{50} as P_{50L} (pH, pO_2 vs. pO_2) over normal ranges and at extreme **in vivo** values of those variables which effect P_{50}. This modified procedure enables significant reductions in cost, time and ease of handling, instability and sample size (to 0.5 ml).

CHROMOSOME MORPHOLOGY AND SEX DETERMINING MECHANISMS OF THE SIAMESE FIGHTING FISH, **BETTA SPLENDENS**, **Lynn A. Lavia** and Gene A. Lucas, The University of Nebraska Medical Center, Omaha, Nebraska.

Biologists once believed that species of the Class Pisces, did not have heteromorphic sex chromosomes: sex determining mechanisms were labile. Since then heteromorphic chromosomes have been found in many species. To investigate the sex determination in **Betta splendens** a karyotype was worked up and pertinent literature was reviewed.

Fish were sacrificed four to six hours after injection with a one per cent aqueous solution of Colchicine. Gill arches were removed, treated to destroy the osmoregulatory system, then placed in a hypotonic salt solution and fixed. Epithelial cells were then sloughed onto microscope slides and analyzed.

The diploid chromosome number of 42 was confirmed. The complement consists of one pair of submetacentric, sixteen pairs of acrocentric and four pairs of telocentric chromosomes. The largest chromosome pair was estimated to be 2.46 microns in length. No heteromorphic chromosomes were seen.

Other authors, in performing sex reversal experiments on female **B. spendens** by surgical removal of a large portion of individual ovaries, observed functional sex reversal in several of these fish. Some fertilized eggs, producing progeny varying from all female spawns to approximate 1:1, male to female ratios. Other authors have found exogenous factors such as food, water conditions and parental age can change the sex ratio considerably.

On the basis of the karyotype with its primitive acrocentric to telocentric chromosomes and which shows no heteromorphic sex chromosome, and sex reversal experiments, **B. spendens** is suggested to have a polychromosomal sex determination.

CONTROL OF ACTH SECRETION FROM THE RAT PARS INTERMEDIA, **Jerry L. Fischer**, The University of Nebraska Medical Center, Omaha, Nebraska.

The physiological factors regulating the secretion of ACTH from the rat neuro-intermediate lobe of the pituitary are unknown. A study utilizing **in vitro** experiments on isolated neuro-intermediate lobes was conducted to test the effect of various compounds on the lobe secretion. The levels of ACTH released were measured by bioassay and radioimmunoassay techniques. Agents found to be potent secretagogues of bioactive ACTH release were acetylcholine (10^{-4} g/ml), hypothalamic stalk-median eminence extract - HSME (1 eq./lobe), arginine antidiuretic hormone (100 mU/ml), and serotonin (100 µg/ml). Lower doses of HSME, arginine antidiuretic hormone and serotonin had no effect. Dopamine (2 and 5 µg/ml) was found to inhibit **in vitro** release of neuro-intermediate bioactive ACTH. Norepinephrine (5 µg/ml) had no significant effect on secretion rates. Measurements of the release of C-terminal immunoactive ACTH release were conducted using antiserum developed in our lab. Acetylcholine (10^{-4} g/ml), HSME (1 eq./lobe), and arginine antidiuretic hormone (100 mU/ml) all significantly stimulated the release of immunoactive ACTH. Dopamine (2 µg/ml) inhibited the secretion of immunoactive ACTH, while norepinephrine (5 µg/ml) had no effect. Comparisons between basal and stimulated states of neuro-intermediate lobe and pars distalis ACTH secretion showed that the level of ACTH being secreted from the neuro-intermediate lobe to be less than comparable levels secreted from the pars distalis. These findings suggested that the neuro-intermediate lobe contributed to normal homeostatic regulation of rat CNS-pituitary-adrenal axis is of lesser significance than that of the pars distalis. Based on the findings of this study it is concluded that while several agents are capable of altering neuro-intermediate lobe ACTH secretion, only acetylcholine and dopamine are likely to do so *in vivo*.

Elizabeth
Shah-Fang Chao

EFFECTS OF ESTRADIOL, TESTOSTERONE AND ANDROSTENEDIONE ON THE OVIDUCT OF THE LIZARD **ANOLIS CAROLINSIS**, **Elizabeth Shah-Fang Chao** and James D. Fawcett, University of Nebraska Medical Center, Omaha, Nebraska.

Testosterone is known to interact with estradiol in the control of uterine maturation in a number of vertebrates. To study this interaction in an oviparous reptile, 88 lizards were ovariectomized bilaterally in October. Estradiol-17β, testosterone, androstenedione and combinations of these hormones were injected daily for 14 days. The animals were maintained on a 16L:8D photoperiod and at 31° C.

With the exception of the low dose of androstenedione (5 μg) all hormone-treated animals had increased oviductal weights. Estradiol alone, or in combination with androstenedione or testosterone induced greater increases than the androstenedione or testosterone treatments. All hormone treatments induced increases in uterine epithelial cell height, lamina proprial width and uterine gland diameter. Uterine gland diameter was highest in the estradiol plus testosterone-treated animals. The stromal area between the lamina propria and the muscularis was edematous in those animals that received estradiol alone, testosterone alone or estradiol plus testosterone. The estradiol plus testosterone treatments induced histological changes which were comparable to the condition of the preovulatory lizards.

These results indicate that testosterone may interact with estradiol in the control of oviductal maturation in the lizard.

Helen L. Lipscomb

CELLULAR IMMUNE FUNCTION IN HYPOPHYSECTOMIZED AND NON-HYPOPHYSECTOMIZED RATS, **Helen L. Lipscomb**, and E. D. Prentice, University of Nebraska Medical Center, Omaha, Nebraska.

Cell-mediated immunity in hypophysectomized (HYX) and non-hypophysectomized (NHYX) rats was assessed by measuring lymph node weight and lymph node cellular profliferation responses to cutaneous application of the skin sensitizer dinitrochlorobenzene (DNCB). Differences were found in the lymph node weight assay, with the responses of the HYX rats being significantly lower than responses of the NHYX rats. There were, however, no significant differences as measured by the lymph node cellular proliferation assay. Explanations for these contradictory results were sought by measuring water content of various tissues, and by examining dose-responsiveness to DNCB in HYX and NHYX rats. Certain tissues, including lymph nodes, of HYX rats were in a partial state of dehydration. If an edema response contributes to the increased lymph node weight of NHYX rats following sensitization, the partial dehydration of HYX rats could result in a decreased edema response, and hence, a lesser lymph node weight response to DNCB. HYX rats also exhibited a dose-response relationship to DNCB, while NHYX rats did not. On the basis of dose-responsiveness, it may be concluded that hypophysectomized rats appear immunodeficient, at least at certain antigen levels.

Colonoscopic Polypectomy — Initial Experience

PART I

JOSEPH E. STITCHER, M.D.
DAVID R. DYKE, M.D.
O. R. HAYES, M.D.
and
LINDA JACOBS, B.S.

THE relationship of cancer of the rectocolon to pre-existing polyps remains controversial. Malignant degeneration of benign colonic adenomatous polyps is still viewed with disbelief by some authors,[1] although Morson has recently produced strong pathological evidence in support of this concept.[2] Although uncertainty has existed in the causal relationship of polyps to malignancy, no one has questioned Gilbertsen's recommendation that all adenomas within the reach of the proctosigmoidoscope be removed to reduce the incidence of rectosigmoid carcinoma.[3] Because of the associated surgical morbidity and mortality,[4] the management of polypoid lesions beyond the proctosigmoidoscope have been influenced by: 1) the size or shape of the polyp on serial barium enema studies, and 2) the ability of the patient to withstand a general anesthesia and colotomy. Fortunately, fiberoptic colonoscopy now permits polypectomy for lesions above the reach of the proctosigmoidoscope with reduction in the morbidity, mortality, and medical expense.[5] This report, though small in comparison to others in number, is made to emphasize several interesting findings that have further modified our clinical management of colonic polypoid lesions.

FINDINGS:

34 patients were colonoscoped with polypectomy or biopsy of 58 demonstrated lesions. Multiple polyps, maximum of four, were removed from six subjects. An additional 3 lesions not seen or biopsied by colonoscopy were removed at the time of subsequent surgical procedure to give a total of 61 pathological specimens for examination. The subjects included 21 males and 13 females. The age range was 32 to 92 years with a mean age of 62 years. (Table #1).

The most common presenting symptom was rectal bleeding in 16 patients. Seven patients had nonspecific abdominal pain. Five were asymptomatic, but an abnormal barium enema was found in the followup of previous colonic disease. (Table #2). Actually, 7 of the 34 patients had a previous history of colonic polyps, and 2 had a past history of carcinoma of the colon. (Table #3). Interestingly, 13 of 34 cases had a family history of some form of intestinal malignancy or colonic polyps.

TABLE #1

34 Subjects		
36 Polypectomies		
22 Biopsies		
SEX	21 Males	
	13 Females	
AGE	Range:	32-92 years
	Mean:	62 years

(Table #4). Ten of the subjects had proctosigmoidoscopic evidence of rectal polyps. Two subjects were found to have blood in their rectum without an obvious source. Preendoscopic barium enemas showed polyps in 28 patients and 2 had diverticulosis without polyps. Four patients had no discernable disease, but 2 were colonoscoped because of previous colonic lesions. One patient who had a negative barium enema was colonoscoped because of suspected inflammatory bowel disease and another was examined because of occult anemia. (Table #5).

32 specimens were recovered after electrocautery snare removal, and only 4 small specimens could not be retrieved. Three of these unrecovered specimens had been biopsied before removal, so only one polyp was lost without proof of the pathology. 22 lesions were biopsied alone. An additional four polyps were biopsied and subsequently obtained surgically along with 3 other non-biopsied lesions, giving a total of 39 specimens removed. As anticipated from previous reports, the 37 tubular adenomas were the most commonly found lesions pathologically. (Table #6). A single hamartoma, a cavernous angioma, had a typical polypoid appearance by barium enema and colonoscopy and was removed by snare polypectomy. The maximum diameter of the benign polyps removed were 2.5 cm for the tubular, 2.5 cm for the villous, and 2.8 cm for the mixed adenomas. The most significant finding was that 2 of the 4 villous adenomas removed by polypectomy had a definite stalk and contained adenocarcinoma. Subsequent surgical removal of the involved segment of the colon revealed no additional cancer. These two cases of occult carcinoma exemplify the importance of polyp discovery and removal.

CASE REPORTS:

Case No. 1: A 69 year old male was admitted on 5/25/75 with a one year history of intermittent rectal bleeding. A barium enema demonstrated a 1.5 cm pedunculated polyp in the high sigmoid colon and was

TABLE #2
PRESENTING SYMPTOMS

Rectal bleeding		16
Abdominal pain		7
Asymptomatic		5
Previous polyp	4	
Change in bowel habit		3
Irritable bowel syndrome		2
Constipation		2
Diarrhea		1
Hemorrhoids		1
Anemia		1
Weight loss		1

TABLE #3
PAST MEDICAL HISTORY

Polyps — previous	7
Carcinoma of colon	2
Carcinoma of breast	1
Sigmoidectomy; Diverticulitis	1
Hemorrhoidectomy	2

TABLE #4
POSITIVE FAMILY HISTORY
13 of 34 CASES

Carcinoma of colon	5
Carcinoma of "intestine"	2
Carcinoma — ? primary	4
Rectal polyp	1
Familial polyposis	1

TABLE #5
PHYSICAL FINDINGS

Proctosigmoidoscopy	
Rectal polyps	10
Rectal blood	2
Negative	22
Barium Enema X-Rays	
Polyps	28
Diverticula; no polyps	2
Post-op status; no polyps	2
Negative	2

TABLE #6
COMBINED PATHOLOGY

	Removed	Biopsied
Tubular adenoma	17	18
T.A. with atypia	2	0
Villous adenoma	0	0
V.A. with atypia	2	0
V.A. with carcinoma	2	0
Mixed adenoma	10	0
M.A. with atypia	3	0
Polypoid carcinoma	2	0
Carcinoma	0	1
Cavernous Angioma	1	0
Hyperplastic polyp	0	3
TOTAL	39	22
Unrecovered	1	

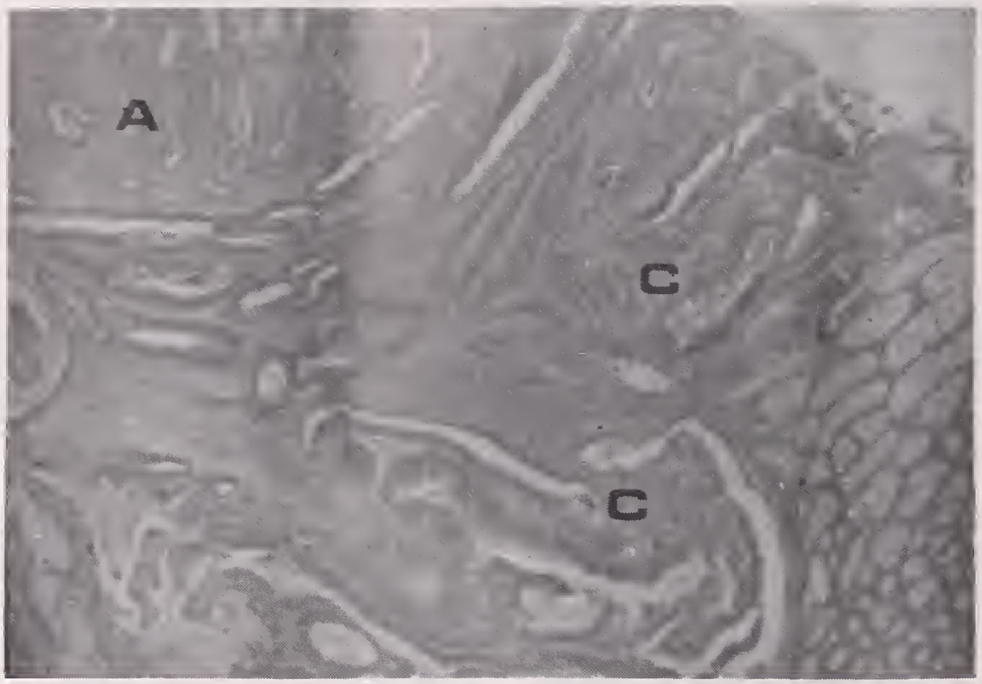

Figure 1. There is normal colonic mucosa along one edge of the base with a sharp transition into atypical glands characterized by loss of normal mucus formation, palisading of nuclei, hyperchromatism and increased mitotic activity. (A = adenoma C = carcinoma)

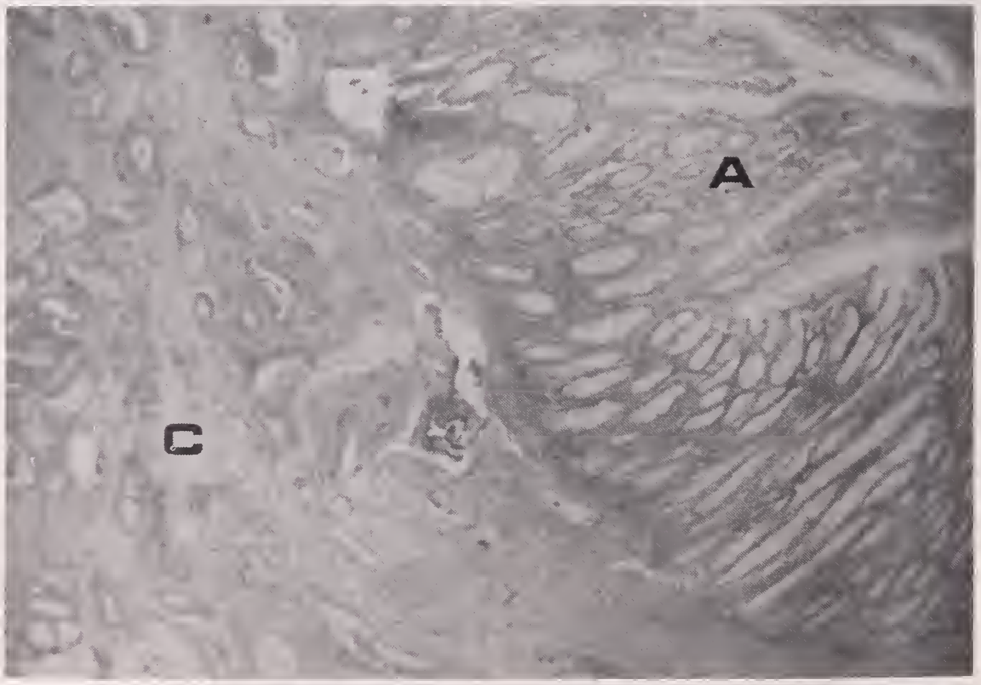

Figure 2. There is distinct disruption of the orderly epithelium and dysplasia of the epithelium is encountered. At this point, irregular and incomplete glands extend into the stalk. (A = adenoma C = carcinoma)

confirmed by subsequent air contrast study. Colonoscopy on 5/27/75 revealed an adenomatous polyp on a fairly long stalk at 23 cm. The lesion was removed without difficulty by electrocautery snare. Histologically, a well differentiated carcinoma within a villous adenoma was seen, with extension of tumor to one border of the stalk. (Figure #1). Sigmoid resection was carried out on 5/31/75, but no additional carcinoma was found in the 14.5 cm of resected colon.

Case No. 2: A 58 year old male had blood seen at 25 cm on routine proctosigmoidoscopic examination. A barium enema revealed diverticulosis and a pedunculated polyp of the sigmoid colon. Colonoscopy revealed a hemorrhagic polyp on an apparent

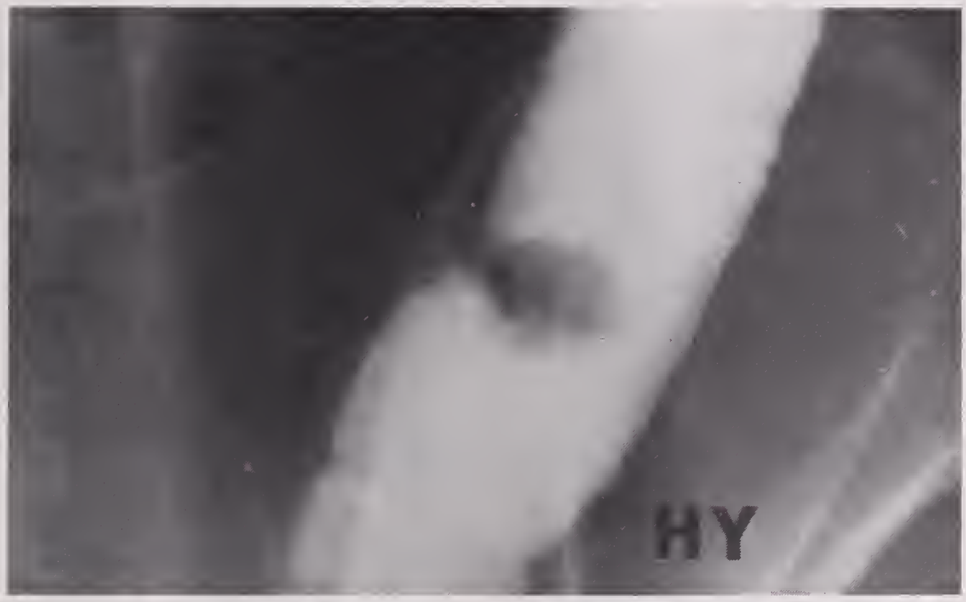

Figure 3. Benign appearing pedunculated polyp, 14mm in diameter, which was an adenocarcinoma.

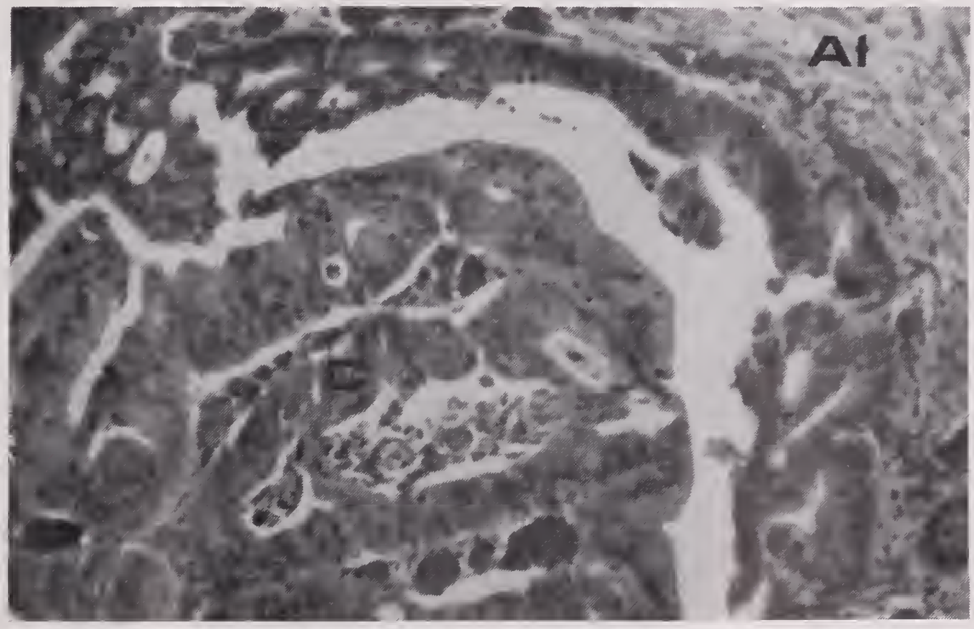

Figure 4. Multiple sections of the excised polyp show hyperplastic glandular structures with distortion of nuclear polarity, cellular elongation and pleomorphism. Zones within the lesion show definite malignant degeration and at least early stromal infiltration. (At = atypia C = carcinoma)

stalk at 35 cm from the anal verge. An uneventful polypectomy was accomplished. Pathological examination revealed a grade II infiltrating adenocarcinoma in a villous adenoma. (Figure #2). An anterior sigmoid resection of a 15 cm segment of the left colon revealed only granulation tissue at the site of the polypectomy.

Two polypoid carcinomas mimicking benign polyps by barium enema were also found. One was removed in its entirety by polypectomy since it had a short stalk. A second case with a sigmoid lesion, thought to be on a short stalk by barium enema, was found to have no true stalk by colonoscopy. It was suspected to be malignant, and biopsy confirmed an adenocarcinoma. An additional sentinel mixed polyp was found. Subsequent removal of the grade III adenocarcinoma by anterior resection of the sigmoid colon revealed no evidence of distal metastatic disease.

Case No. 3: A 69 year old female was referred on 2/16/75 with a history of blood streaked stools of 12 months duration. Barium enema had revealed an apparently pedunculated polyp of the descending colon (Figure #3). Colonoscopy into the transverse colon revealed no pathology other than the polyp at 28 cm from the anal verge. The lesion appeared to have a short stalk and was removed without difficulty or resultant symptoms. The pathology of the 14 mm lesion surprisingly was grade II-III adenocarcinoma (Figure #4). Subsequent surgery to remove the involved segment revealed a confined perforation at the polypectomy site, but no residual carcinoma. The postoperative course was uneventful.

Malpractice — What Is It?

PART II

ROSE FIDELIS FAITHE, M.D., J.D.

So far, the theme has been prevention of malpractice. If there were no malpractice, the next subject, the prevention of the filing of malpractice claims, would not arise. In Nebraska, a patient has the right to go to court to file a claim that he was injured as the result of malpractice on the part of his physician. In some states, the courts are not the first place the patient must go with a claim. For the purpose of the following discussion only, let us assume that there was malpractice (i.e., if the claim went to court, the jury would find malpractice and give an award). How can we prevent, legally, the filing of the claim?

Waiting irritates patients. Try not to make them wait. Schedule your patients throughout your office hours so as to leave room for emergencies. Let people know if you are running late. A patient's time is valuable to him, also, even that patient who isn't taking time off from work.

Have the patient sign a waiver before surgery, examination or treatment. Is it legally binding? No. But the use of waiver aids psychologically in preventing the patient from suing.

Have an arbitration agreement signed before you see the patient. This is not an admission of guilt. It is an admission that disputes can occur between any two people. Reasonable people expect that a method of resolving disputes should be available long before there are any disputes to resolve. Arbitration agreements are legal in every state — in about two thirds of the states they can be entered into before a dispute occurs, in the remainder they can be *signed after* a dispute occurs. The patient usually has three days after signing an agreement to change his mind. Arbitration agreements are neither immoral, illegal, nor unethical.

Be active in the community. It keeps you in touch with reality — and no one wants to sue a friend.

Good charts — while they don't stop a

malpractice suit from being filed — they may stop one if there is another type of resolution of dispute — i.e., a review by the medical community or an arbitration panel.

Notify your insurance carrier immediately if you think you have possibly committed malpractice. This will permit the insurance company to send a representative while the patient is in the hospital, perhaps, and aid the patient in becoming rehabilitated. It also shows *your* concern for the patient, a great psychological advantage in preventing suits, whether or not you were actually careless.

Suppose that patient just mentioned was injured by you and you hadn't called or notified the insurance company. If the patient files a claim, upon notification to *you*, immediately call your insurance company. In almost 80 percent of claims, according to one insurance company, the notice of suit is the very first indication to them of a problem. This is in spite of the fact that the *doctor knew* that there was a problem arising in almost all of the suits filed. By the time a suit is filed, attitudes have hardened.

Upon notice of suit, do not alter, amend or destroy records in any way. If you feel impelled to "correct" your records, don't put the corrections on the original record. Write yourself a letter with the corrections, date it, sign it, have it notarized, send it to yourself, and don't open it. Don't amend or correct or destroy the original records.

Having said this much about malpractice, malpractice prevention, malpractice claims, and what to do if a claim is filed, let us consider some of the reasons for the upsurge in malpractice litigation. There are two parties in dispute but there will be at least five parties involved and probably more: the doctor, the patient, the insurance company or carrier, and the attorneys for all sides. However, about 80 percent, according to one insurance carrier, of malpractice occurs in a hospital; that means the hospital must be represented by an attorney. In addition, according to that same insurance carrier, 80 percent of malpractice litigation arises from hospital based specialties, i.e., anesthesiologists, therapeutic radiologists, plastic surgeons, orthopedists, neurosurgeons and obstetrics-gynecologists. The total of these specialists are about 15% of the total active physician population of the U.S. (about 330,000 physicians).

Each of the parties to the lawsuit has a point. The problem is one which affects all professional people and all professions. Consider the points made by each side, beginning with the insurance companies which write malpractice insurance for physicians.

They are in business to make a profit. If a profit is made, they can stay in business; if a profit is not made, the insurance companies cannot stay in business. They say they are not making a profit. Why aren't they? They give several reasons, and the reasons appear to be excellent.

1) Litigation has increased, partly due to the increased risks of many procedures which physicians now can use in attacking formerly unsolvable problems. The use of a kidney dialysis machine today is readily accepted including home use but the risk of infection, allergy and other reactions creates major problems. Before dialysis treatments, the patient died.

2) Expectations of cure have grown steadily greater. In 1930, antibiotics had not yet been discovered. Pneumonia of a bacterial type usually meant several weeks of steadily getting worse until the crisis came. At that point, the mortality was about 30 percent. The other 70 percent took many weeks to get well. Now if a patient is not improving in two or three days, we doctors think we haven't diagnosed very well — and the patient agrees with us and begins questioning our judgment. We — as well as the patient — expect miracles. But the miracle drugs all carry risks of anaphylaxis, allergy and side effects.

A third consideration or reason given by insurance companies is that there is such a long time over which claims can be filed. Let us take Nebraska. In the Revised Statutes, the statute of limitations (a limit of time during which a claim may be filed), for medical malpractice is two years. However, the cases (brought by the patients) in the state have interpreted this statute to mean — two years from the time that the patient could reasonably have been expected to *discover* the malpractice. Suppose a doctor performed a pyloroplasty on a 6-week-old in 1948 and lost a hemostat in the abdomen. The patient has had no problems in 20 years but in 1975 a flat film of the abdomen was taken because the patient was in an automobile accident, and the hemostat was seen. The patient still has two years to file a lawsuit. That is 27 years from the time of the losing of the hemostat in the abdomen.

Nebraska's statute says nothing about minors. When not specifically ended or changed by statute, common law as it was at the time of our revolution controls. That means if an injury occurred at birth, 21 years could elapse before the statute of limitations began to run — a period in Nebraska of 23 years. How does an insurance company put aside reserves to take care of suits which might be brought that long from now?

Should a jury or judge decide on a question of medical malpractice? Does either know enough? Medical malpractice is called a tort — a legal civil wrong. You have a right to a trial by jury in Nebraska but you may waive that right and accept a verdict or judgment by a judge only.

How hazardous are the risks in your specialty? Who sets the standard of care by which you are judged? Cases have been holding that the standard is the same as that of doctors of your same training or specialty in a town the size of yours anywhere in the United States. This is not yet universally true. The reasons that the standard of care may not be the same in all communities has to do with the previous training of physicians and what schools they graduated from, and when. There are only Class A medical schools now, but graduates of Class B and Class C medical schools are still in practice.

Should an insurance company pay twice — once through taxes and once by verdict? While for meritorious claims the patient should be compensated should the patient be able to collect from, say, governmental disability programs *and* from the insurance company of the physician? The answer of most people to that is no. Yet at the present time, in Nebraska, the patient could. So the collateral source rule might be made law (this permits you, the doctor, to show after a judgment has been rendered, that the patient is receiving compensation in some manner and thus be able to reduce the award by that amount). The other item is called "periodic payments." This means that instead of a $1,000,000 judgment, that it is determined that the patient will need $1,000 a month and a fund is created to pay that amount for the care of the patient until the disability is over. If the patient lives two months — then $2,000 is paid. If the patient lives 10 years then $120,000 is paid. The remainder of the $1,000,000 judgment would go to the next of kin or legatees. But under periodic payments the next of kin would receive nothing from the testator as far as the malpractice award is concerned.

Another suggestion is that a limit be put upon the total amount a patient can recover under any malpractice claim. This has been tried in several states. No cases have yet been brought (not enough time has elapsed).

Some of the rules of evidence may need to be changed — perhaps a redefinition of the burden of proof so that the physician is not assumed to be negligent.

A different method of adjudicating claims is needed — that is, a medical review panel or binding arbitration. While the first would permit a malpractice claim to be filed, the second would effectively stop the claim from getting to court. It would not reduce liability nor claims, and some have said it would even increase the amount and number of claims won by the patient but it is private, not public, as a court trial is — so the loss of reputation, which occurs in a public trial need not occur.

What is informed consent? This could be more clearly stated statutorily than it is.

The juries or judge could be required to specify exactly how much of each award is for what purpose.

And the contingency fee system, now all right under our statutes, could be limited to a percentage amount and could be on a sliding scale, with the percentage becoming less the higher the award.

Another point that is made by insurance

companies is that there is such a small base on which to prorate premiums. If you talk about automobile liability insurance you may be talking about 60 million drivers. If you discuss health insurance, you may be discussing 120 million people. If you discuss medical malpractice insurance for physicians you are talking about 330,000 doctors in the United States, and from $100,000 to $5,000,000 coverage. Yes, the premiums would have to be high, when awards are high, when risks taken in medical practice, even legitimately, are increasing. And remember, there are even fewer doctors in high risk areas — over the United States, 15% are in Class V — the highest paying.

So the insurance companies have a point — they cannot compute costs of medical malpractice accurately and thus must set aside larger reserves than they perhaps need. However, they are losing money. They thus have changed from "occurrence" claims to "claims-made" coverage. "Occurrence" means which acts of alleged malpractice occurred during the year covered by your policy for which a premium is paid. "Claims-made" is figuring your premium on the basis of the "claims made" to that company the year before. The "long tail" is the problem of not knowing, for any one year, how many claims will be made. Claims made coverage uses the experience of the last year of claims paid to set the rates for this year.

The doctors have a point — if and when there is a meritorious malpractice claim — the patient should receive the lion's share of the award — that is the person who was injured through negligence. However, contingency fee arrangements are the means by which these patients, often poor, can have their "day in court." Any attorney who sought out a patient and requested that patient to file a claim would be severely censured or disbarred by his state association. But if a patient (now called a client) comes to an attorney, gives him or her the facts, and the attorney states that the client may have a case, and in order to be paid the attorney suggests a contingency fee arrangement, that is neither immoral, illegal, unethical, nor solicitation. In California, where a new law is being written — a sliding scale contingency fee arrangement is being written with percentages of about 50% for the first $5,000 recovery, 30% for the next $45,000, 20% to $100,000, and 10% over $100,000. Not one attorney has protested, although the California legislature is made up of about 50% attorneys. State legislatures can change the common law by statute on this point.

And doctors don't like being sued just because a bad result occurs. If a physician does not actually contract for a cure (generally in so many words in writing), then the presumption *used to be* that he did not guarantee one. That presumption is gradually changing — the patient expects to be "cured" and the doctor often implies that the patient will be. The patient is often expecting an instantaneous or almost instantaneous cure. The juries, made up of patients, are expecting it also — so that the burden of proof (perhaps not legally but in the minds of the jurors) is now on the doctor to show "why" this didn't happen.

The lawyers have a point. They want to be paid for their services — and should be. They are advocates.

The patients have a point. When they are injured through negligence of a physician, they should be restored to their former condition if possible, or if not, compensated.

So there are points to be considered on all sides. Have you read the bills before the Legislature? Are you serving on your committee? Have you considered the plight of the injured patient?

Nebraska is not in as bad shape as other states. It need not get to that impasse.

What have you done recently to prevent malpractice by yourself? How are your records? The time to prevent malpractice is *now*, not tomorrow. The time to prevent higher rates on insurance is *now*, by aiding in making certain needed changes in our laws, with the aid of the Legislature.

But let us not blame any one but ourselves for our problem. It won't go away if we hide our heads in the sand. It can be lessened by our active help.

A Retrograde Transverse Sinus Radionuclide Venogram: A Case Report

JOHN F. AITA, M.D.

Abstract

Following the injection of technetium 99m pertechnetate into the left cephalic vein of a patient whose left innominate vein was ligated, the radionuclide followed a retrograde venous course into the left internal jugular vein and sigmoid sinus, across the transverse sinuses, and inferiorly through the right sigmoid sinus and internal jugular vein.

Thus it appears that collateral venous circulation through the transverse sinuses is a sign of ipsilateral innominate vein obstruction.

THE interpretation of brain scans begins with familiarity with the normal vasculature of the head, neck and chest and knowledge of the individual patient's case. The following case which initially presented a perplexing array of scintiphotos, illustrates this point.

Case Report

The patient is a 51 year old, right handed, white male who underwent open heart surgery on 9/10/74, for a prosthetic replacement of a calcific aortic valve. Because of hemorrhage at the time of surgery, the left innominate vein was ligated.

Approximately three weeks later, the patient was seen in neurologic consultation. He was found to be poorly oriented to place and time, to have difficulty with recent and remote memories and abstract thought, and to have right/left confusion, an acalculia and an anomic aphasia. There was apraxia of both hands, mild terminal dyssynergia with finger pursuit bilaterally and bilateral Mayer, Wartenberg, and Babinski reflexes. There was no nystagmus in either direction with moving the optokinetic tape horizontally before the patient's eyes to his left and then to his right. Graphesthesia and double simultaneous stimuli were poorly perceived bilaterally. This diffuse neurologic picture was felt to be vascular in origin and most likely related to a shower of calcific emboli at the time of removal of the calcific aortic valve.

As part of the neurologic evaluation, a technetium brain scan was initially performed on 10/2/74, after injecting 15 millicuries of technetium 99m pertechnetate as a single 1 milliliter bolus into the left cephalic vein. The rapid scintiphotos which were obtained with the patient in the posterior position over a 60 second period at 2 second intervals show the flow of the radionuclide into the left internal jugular vein and sigmoid and transverse sinuses (Figure 1-A), into the right transverse sinus (Figures 1-B and C), down the right sigmoid sinus (Figures 1-D and E) and into the right internal jugular vein (Figures 1-F and G); thereafter, the nuclide enters the systemic circulation and is finally seen to have entered the intracerebral arterial circulation and passed through to the great draining veins and sinuses (Figure 1-H).

The following day a repeat injection of the left cephalic vein was performed using the above techniques in the posterior position. This study (Figure 2) shows the nuclide progressing proximally through the left cephalic and basilic veins (Figure 2-A and B), into the left axillary and subclavian veins (Figure 2-C) and collecting at the level of the ligated left innominate vein (Figure 2-D) and slowly journeying from this position via collateral circulation superiorly into the left internal jugular vein, medially through the middle and inferior thyroid branches and inferiorly through internal mammary veins (Figures 2-E, F and G).

On 6/5/75, a third rapid sequence brain scan performed using the above techniques and injecting the left cephalic vein showed little change from the original scans of 10/2/74 and 10/3/74.

Discussion

Similar alterations of innominate vein circulation have been previously described. In 1952, Schwartz and Fraenkel[1] first demonstrated via right cubital vein phlebography with Diodrast a case of right innominate vein obstruction with diversion of venous blood into the right internal jugular vein, through the transverse sinuses and into the left internal jugular and innominate veins.

Holden, Staab, and Patton[2] described one case of complete and one case of partial occlusion of the left innominate vein. Both cases demonstrated collateral circulation of technetium 99m pertechnetate through the posterior half of the skull from left to right by way of the endocranial sinuses. Left antecubital venograms revealed collateral venous circulation up the left internal jugular vein, across the endocranial transverse sinuses from left to right and down the right internal jugular vein in their first case and showed reflux into the endocranial venous circulation in their second case.

Friedman, Lovegrove and Wagner[3] reported a single case in which following left antecubital vein injection, the radionuclide was seen entering the left sigmoid and transverse sinuses and later crossing the midline. It was speculated, based on the absence of known intrathoracic pathology and a normal repeat study performed two days after the initial abnormal study, that the jugular vein reflux into the dural sinuses was secondary to breath holding or a valsalva maneuver.

More recently Peart and Driedger[4] described two cases of complete and one case of incomplete obstruction of the left innominate vein all of which demonstrated retrograde flow of the radionuclide, (following left antecubital fossa vein injection), into the left internal jugular vein, across the midline via the transverse dural sinuses, and down the right internal jugular vein.

The present case emphasizes the fact that the dynamic portion of technetium scanning

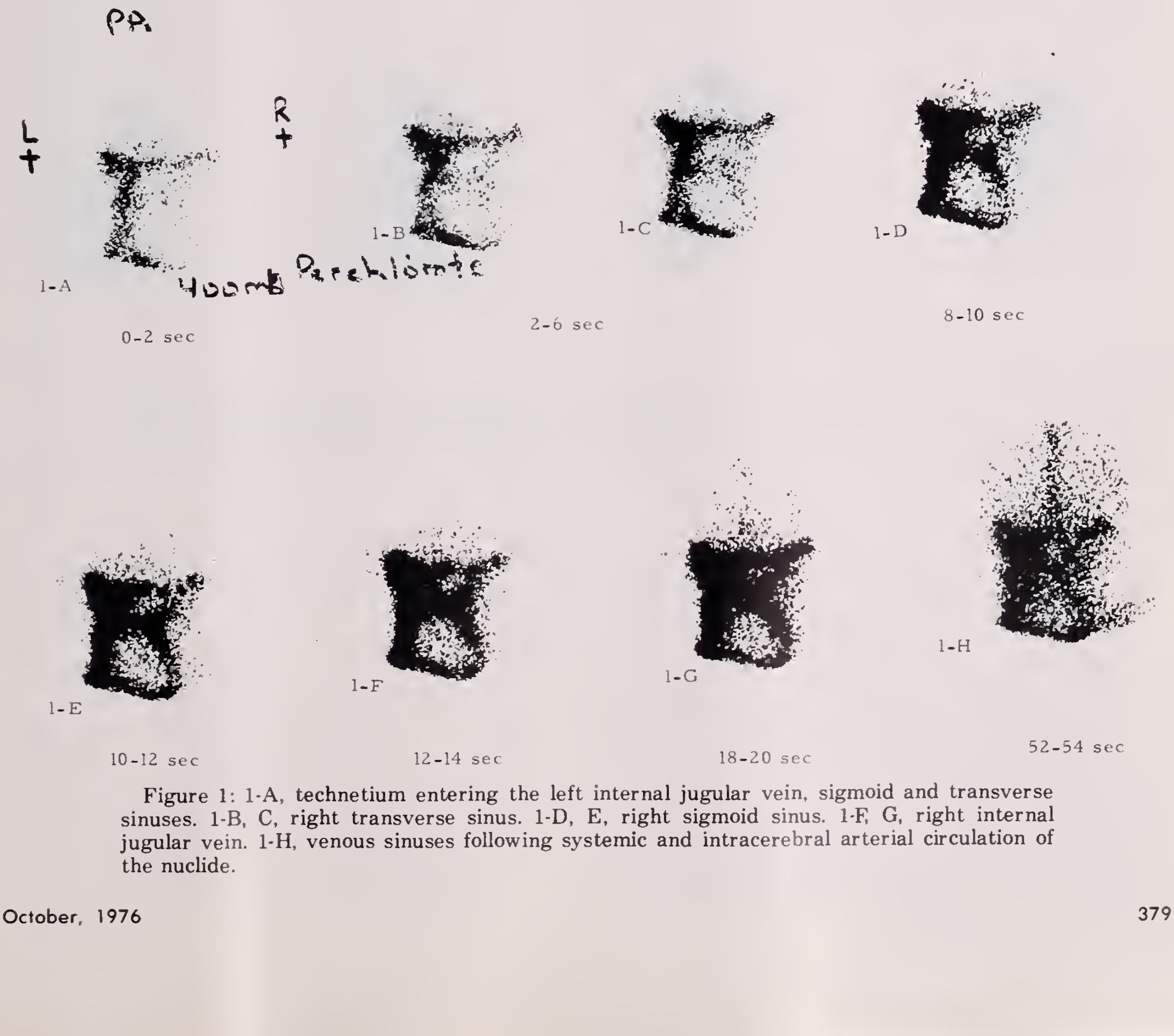

Figure 1: 1-A, technetium entering the left internal jugular vein, sigmoid and transverse sinuses. 1-B, C, right transverse sinus. 1-D, E, right sigmoid sinus. 1-F, G, right internal jugular vein. 1-H, venous sinuses following systemic and intracerebral arterial circulation of the nuclide.

is a valuable indicator of altered circulation — in this instance, of innominate vein collateral circulation. Thus, it would seem that the appearance, with either radionuclide flow studies or with venography, of retrograde venous flow through the ipsilateral internal jugular vein, and sigmoid sinus across the transverse sinuses and down the contralateral sigmoid sinus and internal jugular vein is a sign of ipsilateral innominate vein obstruction.

References

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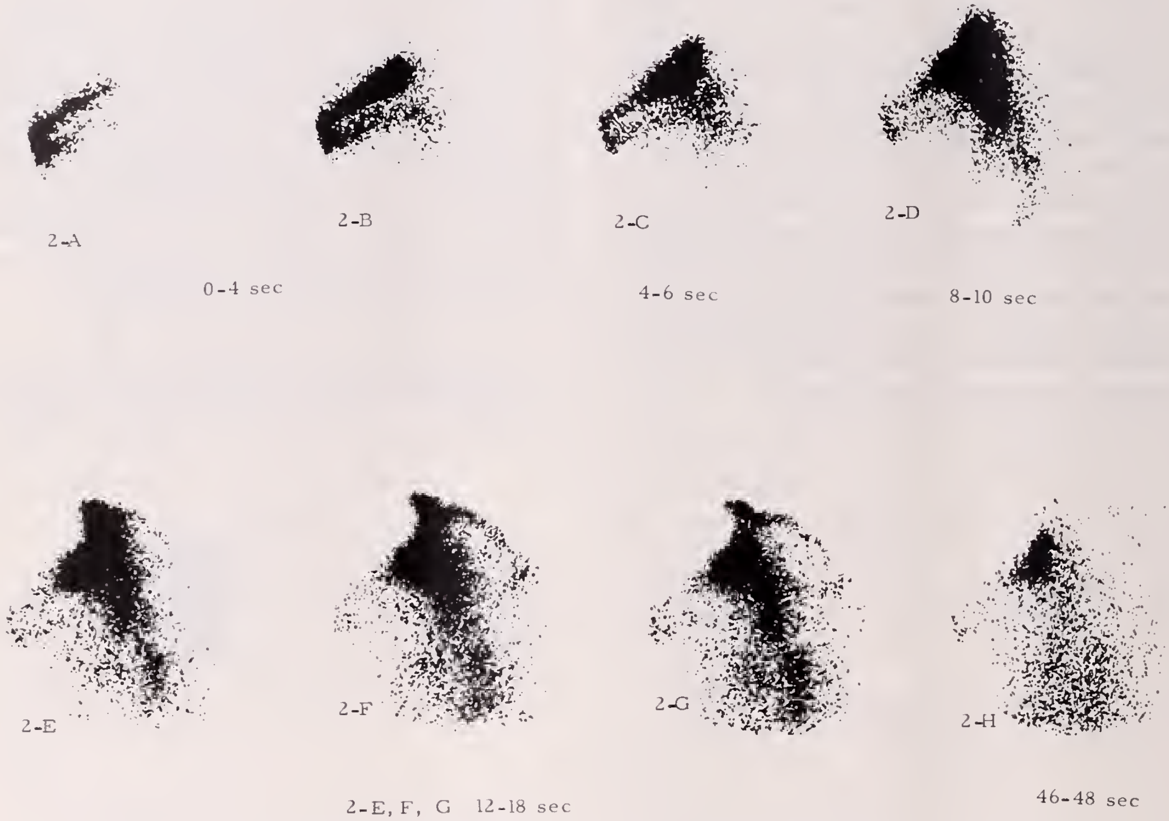

Figure 2: 2-A, B, left cephalic and basilic veins. 2-C, left subclavian-axillary veins. 2-D, left innominate vein obstruction. 2-E, F, G, collateral venous circulation: left internal jugular, middle and inferior thyroid, and internal mammary veins. 2-H, nuclide remaining at the obstruction.

Exercise in the Patient With Ischemic Heart Disease

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THERE are three major uses of exercise in the patient with ischemic heart disease. First, exercise is a requirement during the early treatment of the individual who has sustained an acute myocardial infarction (MI). Second, it is extremely useful as a diagnostic procedure in staging the extent of the disease in patients with angina pectoris (AP). Third, exercise plays a valuable role in the rehabilitation of the patient who has sustained an acute MI.

Exercise In The Acute MI Period

In the treatment of the patient with an acute MI we utilize the following exercise program during the inpatient and immediate posthospitalization periods. Upon arrival in the coronary care unit, the patient is allowed to assume the position in which he is most comfortable. He is at bedrest but is not restricted as to motion. After the chest pain is relieved, the effects of any opiates have subsided, and no hypotension occurs in the upright position, the patient is allowed the bedside commode and, if a man, he may stand to void. Movement of the arms, shoulders, and legs is encouraged. In fact, we provide a footboard for the patient and encourage foot patting. We utilize this level of exercise during the first one to two days following the onset of the acute MI.

Beginning on the third day, if the MI is uncomplicated, the patient may sit in a chair for half an hour at a time, three or four times a day. It should be remembered that the amount and type of exercise for any particular patient is individualized, and there is no set rule for when he may begin various levels of exertion. By the end of the first week, the patient may sit in a chair for several hours a day if complications such as congestive failure, recurrent chest pain, arrhythmias, hypotension, etc., do not occur. During the second and third post-MI weeks, while he is still in the hospital, the amount of activity is progressively increased. By the end of the period of hospitalization the patient is up and walking, taking care of himself and using the regular bathroom facilities. Hospitalization usually lasts for three to four weeks depending on the age of the patient, the type of MI, and complications, if any.

By the end of four to five weeks, we allow our patient to climb a flight of stairs, take short rides, and be out-of-doors in good weather. The patient is allowed to return to work in two to three months, depending upon the type of occupation and the severity of the infarction. At this time, he is particularly encouraged to take walks, play golf, and swim, especially if congestive heart failure is absent. In general, the patient is allowed to engage in activities which are comfortable to him and do not cause chest pain.

The resumption of sexual intercourse is extremely important to most patients, and is an issue which must be raised by the physician. We usually allow resumption of intercourse six to eight weeks following the acute MI, and suggest that most of our patients use prophylactic nitroglycerin, particularly if they have AP following the acute MI. In recent years, it has been found that peak heart rate during intercourse between married partners is less than that found during peak ordinary work activity.

During coitus the amount of work performed by the heart is only 60% of the maximal heart rate and less than the effort of a Master's Two Step Test. The duration of the peak attained heart rate is usually no more than thirty seconds.

Exercise Stress Testing

Exercise stress testing may be used to demonstrate latent ischemic heart disease or to confirm the diagnosis of angina pectoris. It may also be used to evaluate cardiac functional capacity, to clear individuals for strenuous work or exercise programs, and to evaluate responses to conditioning. The risk of mortality during the 24 hours following exercise testing is less than one death per 10,000 tests while the risk of non-fatal complications requiring hospitalization is about 2.4 per 10,000 tests. Multistage exercise testing with successively increasing workloads accompanied by continuous EKG monitoring and periodic blood pressure determination is the most informative type of exercise stress test. For such a test we employ increasing workloads on a treadmill until either the subject is stopped by the onset of symptoms or until his heart rate reaches 80% of the expected maximal heart rate predicted for his age. The target heart rate may be attained easily by some individuals and be unattainable by others. If the subject is halted by fatigue before reaching the target heart rate then he has indeed reached his maximum capacity. Mandatory end points may be imposed by shortness of breath, chest pain, cerebral dysfunction, pathologic electrocardiographic (EKG) changes, or an inappropriate blood pressure response.

Certain basic requirements must be met in planning a multistage treadmill exercise test. The workload is begun at a low level and allowed to progress to higher levels in a regular sequence. This avoids excessive energy demands caused by an inordinate increase in workload. Each stage is three minutes in duration, since this amount of time is required to produce a near-steady state of oxygen demand. More than four to six stages unduly prolongs the test. Following the test the subject should be monitored in the recumbent position for the first five to ten minutes of the recovery period or until the heart rate falls to within ten to fifteen beats of the pre-exercise rate. It should be noted that in some cases pathologic EKG changes only occur in the post-exercise period.

In conducting a multistage treadmill exercise test, each subject should be instructed in the purpose and potential hazards of the test prior to actually beginning the test. Written informed consent is then obtained from the patient. Continuous EKG monitoring prior to and continuing until after the testing is completed is required. Every exercise test should be supervised by a knowledgeable physician, who constantly monitors the EKG for abnormalities both during and after testing. The following abnormalities indicate an increased probability of significant heart disease: ST segment elevation or depression of one millimeter or greater in three successive beats, three or more consecutive ventricular ectopic complexes (a short burst of ventricular tachycardia), paroxysmal supraventricular arrhythmia, the appearance of bundle branch block, and second or third degree atrioventicular block.

The physician's first obligation prior to exercise testing is to be certain that the subject shows no clinical evidence of acute heart disease or any other illness that might be aggravated by vigorous exercise. An evaluation of the cardiovascular system including a resting EKG should be obtained to be certain that the subject is either normal or free of acute EKG changes. Orthopedic and other limiting abnormalities should be noted. Emotionally disturbed persons should not be tested. Absolute contraindications to testing include impending or fresh myocardial infarction, uncontrolled cardiac arrhythmia or any acute illness. The physician should take a blood pressure reading prior to and during each stage of the test. For evaluating discomfort or symptoms occurring during testing, the physician must utilize his clinical judgment and the EKG findings in order to decide whether the test should be terminated. The appearance of angina particularly if verified by ischemic EKG manifestations, inappropriate shortness of breath, severe leg claudication, faintness, or dizziness, constitute reasons for termination. The subject should be made to understand that he can signal the examiner when he feels discomfort and wants to stop the test, but he should also know that he himself has the right to stop voluntarily if he so desires. Exercise testing should be done where there is ready access to medical facilities and where appropriate followup care can be given if a serious mishap occurs. There must be emergency facilities in the testing room for dealing with cardiac arrest, myocardial infarction, serious dysrhythmia, or syncope. A defibrillator should be immediately available in the exercise room.

Our graded treadmill exercise test is performed as follows: First, there is a brief physical examination and a history taken with special attention to the cardiopulmonary system and symptoms such as previous chest discomfort. The patient is normally fasted overnight if tested in the early morning. A 12 lead resting EKG is recorded and interpreted. If these measures yield evidence that contraindicates exercise, the test is not performed. The physician or a technician then demonstrates the test. Total monitoring is carried out with continual questioning of the patient to obtain his subjective responses and continued observation of his expression, posture and gait. Also important are periodic palpation of the arms; shoulders, and forehead to estimate skin temperature and sweating, indirect blood pressure measurement taken at least once during each three minute treadmill stage and electrocardiographic monitoring of at least one and preferably three leads continually displayed and periodically recorded. We routinely monitor leads V_1, II, and V_6 on a 3-channel electrocardiograph. If only one lead can be monitored, we use one similar to lead V_5. Each stage of the treadmill exercise test lasts for three minutes. We use speeds of 1.7, 2.5, 3.4, and 4.2 miles per hour in sequential fashion with a grade of 10%, 12%, 14% and 16% respectively.

Following the exercise, the patient's EKG is recorded in the standing position and he is then quickly transferred to the examining table for the post-exercise 12 lead EKG which is begun the instant the individual is at rest and movement artifact subsides. The procedure is repeated after one, two, four, and six minutes. We also monitor the blood pressure and listen for a murmur of functional valvular incompetence and gallop heart sounds. The patient should be questioned concerning any symptoms he may have failed to report in the last moments of exercise, and we then follow the course of relief from symptoms such as angina. The latter may or may not require the use of sublingual nitroglycerin for relief.

The interpretation of the test in the unmedicated subject who is in the fasting state and shows no evidence of cardiovascular disease on physical examination is based on the occurrence of an abnormal EKG. A positive test is demonstrated by at least one millimeter of flat ST segment depression or downsloping ST segment for three consecutive beats. Other less specific criteria include such things as chest pain and frequent PVCs or arrhythmias, etc., but only the change in the ST segment is truly diagnostic of ischemic heart disease.

Rehabilitative Exercise

Exercise therapy or exercise training on a long term basis may have certain benefits in its effect on cardiovascular function and rehabilitation. The suggested benefits include decreased myocardial oxygen requirement due to changes in blood pressure, heart rate, and tension time index, increased myocardial collateral circulation, decreased risk factors, decreased infarction rate and sudden death, and increased cardiac reserve.

In order to conduct exercise training in the post-MI patient, it is necessary to write a prescription for exercise for each individual. The components of an exercise program prescription include the intensity, duration, and frequency of the exercise. In order to determine how to apply each of these components to the individual patient, the exercise tolerance must first be determined — how much exercise the patient can perform before objective signs of myocardial ischemia with ST segment changes occur. The best means of determining the level of exercise is through the graded treadmill exercise test. It also provides an opportunity to examine the patient before and after exercise and to detect signs of cardiac failure provoked by the exercise. The physician should inform the patient of the possible risk of long term exercise training and, if possible, provide appropriate emergency facilities in the area in which such an exercise program is performed. This, of course, demands that the program be supervised. The following is a sample exercise program prescription. The duration of the exercise could be 30 to 60 minutes consisting of 5 to 10 minutes of warm up, 20 to 40 minutes of exercise and 5 to 10 minutes of tapering off. The frequency could initially be 2 to 3 times per week for the first month, gradually increasing to 3 to 5 times per week over the subsequent several months. The intensity is determined by using the exercise capacity determined by the treadmill exercise test.

Once an appropriate exercise program has been formulated, several major problems may lead to failure. The most acute problem is the loss of the patient's enthusiasm for the exercise. Initially most patients are eager but after 4 to 6 weeks their interest may wane and compliance with the exercise program may become sporadic leading to eventual termination.

This problem can frequently be eliminated if the exercise is tailored to the individual's interest and some attempt is made to eliminate monotony. For example, a patient could place an exercise bicycle in front of his television set while doing his exercises, rather than performing them alone in the basement. Exercise programs are often performed in groups, but this practice has potential disadvantages and leads to other problems. It has been found that viral illnesses are readily transferred through respiratory exchange in such groups, and illness often accounts for breaks in the exercise routine — a routine which the patient often never resumes. In addition, the group's enthusiasm or willpower is often only as strong as its leader or coordinator. If this individual loses interest or drops out of the program, then the entire group usually disbands. On the other hand, compliance is usually best in groups rather than on an individual basis.

A good exercise program requires sustained habitual exercise. All too often sporadic exercise is thought of as an exercise program. Typically, the patient performs a regular routine required by his occupation five days a week, usually with a low expenditure of energy. On weekends he may indulge in bursts of strenuous exercise such as tennis, golf or some other form of recreation. In participating in this form of exercise he may be stressing himself maximally and risking sudden death. Physical fitness of this type is a delusion and a risk. It has been demonstrated that the weekend althlete is no more physically fit than the individual who does not exercise at all.

Asymptomatic Obstructive Airway Defect — An Analysis of Causal Factors. A Study Involving 425 Nebraskans*

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PART I

Abstract

IN a study involving 425 'asymptomatic' Nebraskans with no known history of chronic respiratory disease, the percent predicted forced expiratory flow between 25 and 75% (FEF25-75%) of observed forced vital capacity (FVC) was found to be abnormal in 149 (33%) of the 425 subjects. The percent predicted FEF25-75%, a simple yet sensitive technique, was eight times as effective in detecting obstructive airway changes as the first-second forced expiratory volume (FEV1). The ratio between the FEV1 and the observed FVC was abnormal ($<70\%$ of predicted) in 73 (48.9%) of the 149 subjects in whom the percent predicted FEF25-75% was abnormal.

Of the 'known' causal factors examined, the alpha-1 antitrypsin (α1AT) proteinase inhibitor (Pi) phenotype was the only one which exhibited a relationship between it and a decreased percent predicted FEF25-75%. Until such time as other causal factors can be identified the authors recommend an increase in our attempts to identify and follow those individuals who exhibit obstructive ventilatory changes. To do this, emphasis must be placed on the use of spirometry as a routine office procedure.

This paper is presented for the following reasons: Firstly, to discuss the frequency of 'asymptomatic' airway obstructive airway defect in a randomly selected population residing in a predominantly rural state. Secondly, to demonstrate that the percent predicted forced expiratory flow between 25 and 75% (FEF25-75%) of the forced vital capacity (FVC) is a simple, yet sensitive test for detecting an obstructive airway defect. Thirdly, to suggest that many of the so-called 'known' causal factors in irreversible chronic obstructive pulmonary diseases (COPD) e.g., chronic bronchitis, emphysema, may not be as important as previously thought. Fourthly, that the role of genetically transmitted causal factors should be more thoroughly investigated.

Methods

The field portion of this study was completed within a month so that all individuals were evaluated during the same season and presumably exposed to similar seasonal factors. Twenty-six Nebraska communities were selected as potential study areas. By random allocation, 14 of the 26 communities were chosen. These included Gordon, Scottsbluff, Kimball, Ogallala, Red Cloud, Alma, Kearney, Broken Bow, Pender, Omaha, Lincoln, Fairbury, Tecumseh, and Nebraska City. Dr. Francis Land, formerly Chairman, Department of Family Practice, University of Nebraska Medical Center, recommended a physician in each of the 14 communities. The physicians were contacted, the design of the study explained, and a willingness to participate agreed upon.

One week prior to our field visit each physician was asked to select 30 individuals, between the ages of 30 and 70, in whom he had neither observed nor recorded a history of chest or heart disease. The former included allergic disorders. He was told to invite the subjects to participate in the order they were seen in his office. As the subjects accepted, they were instructed to return to his office in approximately seven days. If a patient refused or was unable to return, the physician was told to continue asking other patients until he had recruited the specified subject quota. The participating physician was instructed not to inform the patient of the nature of the investigation. The objective was to lessen the chances of a subject returning because he might have an unusual interest in learning whether he had chest disease. If a subject did ask, the physician was requested to state that a field team from the University of Nebraska Medical Center would be visiting his office to learn something about an acknowledged public health problem in Nebraska. In order to obtain his quota of 30 patients a physician generally questioned 35 individuals about their willingness to participate. Very few subjects failed to cooperate and the 'show rate' on the day of the study was $> 87\%$ of the subjects who had agreed to come.

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On the day of the examination, three members of the field team headed by one of us (HR) visited the doctor's office. A questionnaire was administered to the subjects by only (MDK) another member of the field team. The questions were patterned after those included in the British Medical Research Council Questionnaire.[1] A specimen of venous blood was drawn in the doctors office from each patient. The specimen was centrifuged, serum removed, frozen, and shipped to the Regional Chest Center, University of Nebraska College of Medicine, Omaha, for alpha-1 antitrypsin (α_1AT) studies. These included a quantitative measurement of the serum α_1AT level (mg/ml) and an identification of the proteinase inhibitor (Pi) phenotype.[2, 3]

A spirograph was performed on each participant. Age was recorded to the nearest birthday and verified by checking the driver's license. Height was measured with the subject standing in stocking feet. The subject was instructed to blow forcefully into a spirometer* until two reproducible curves were recorded. Lung volumes were corrected to body temperature and pressure, saturated with water vapor (BTPS).

The following volumes and flow rates were obtained from the spirometric curve i.e., FVC, first-second forced expiratory volume (FEV1.0), FEV1.0/FVC%, and FEF25-75%. The FEV1.0 was considered abnormal if $< 70\%$ of the predicted FEV1.0. A FEV1.0/FVC% of $< 70\%$ was considered abnormal. The FEF25-75%† was calculated according to the method described by Mori;[4] and the standards used were those of Morris et al.[5] The FEF25-75% was considered probably abnormal if $< 70\%$ of predicted, and definitely abnormal if $< 50\%$ of predicted. No patient was included in the study if the FVC was $< 80\%$ of predicted. No validation studies were performed.

Results

425 subjects were included in the study. 201 were males and 224 were females. They ranged in age from 30 to 70 with a mean age of 46.78 years. 422 were white, and three were negro. The average income of the subjects was above the poverty minimums established by the Federal Government. 199 (47%) were presently smoking cigarettes. 165 (39%) had never smoked and 61 (14%) had previously smoked but had not smoked for at least six months prior to testing.

Table 1 gives the diversity of current occupations of the subjects. The occupational environmental exposure history is presented in Table 2. Frequency of symptoms and factors affecting breathing are exhibited in

TABLE 1

BREAKDOWN OF CURRENT OCCUPATIONS AS OBTAINED FROM QUESTIONNAIRE

Job	Frequency	Percent
Businessmen	105	24.7
Housewives	103	24.2
Laborers	64	15.1
Farmers	40	9.4
Secretaries	40	9.4
Nurses	23	5.4
Teachers	21	5.0
Clerks	8	1.9
Physicians	7	1.6
Clergy	6	1.4
Lawyers	3	0.7
Undesignated	5	1.2
TOTAL	425	100

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*Vitalograph Wedge Bellows spirometer (Model 20.165) is a waterless spirometer in which the electromechanical system is linked to the pneumatic system. Changes in the latter result in a linear displacement of the stylus. Vitalograph Medical Instrumentation, Lenexa, Kansas, 66215.

†Percent predicted FEF25-75% was chosen as opposed to the actual measurement expressed in liters/second so as to normalize differences between individuals in regard to age, height, and sex.

Table 3. The counts in the latter table are the responses of the subjects to the questionnaire.

118 (28%) of the subjects never lived in a rural area. The mean number of years lived in a rural area by the remaining subjects was 16.9 varying from one to 68.57 (13%) of the subjects never lived in an urban area. The mean number of years that the others resided in a community was 29 ranging from one to 70.

TABLE 2

OCCUPATIONAL HISTORY AS OBTAINED FROM QUESTIONNAIRE

Job*	Frequency	Percent
Presently working in a dusty job	97	22.8
Ever worked in a dusty job	322	75.8
Ever worked on a farm or ranch	310	72.9
Coal mine	3	0.7
Other mine	1	0.2
Quarry	9	2.1
Foundry	15	3.5
Welder	51	12.0
Cotton, flax or hemp mill	6	1.4
Asbestos	22	5.2
Pottery	5	1.2
Irritating gas or chemical fumes	100	23.5
Fertilizers	78	18.4
Herbicides	79	18.6
Pesticides	79	18.6

*Many of the subjects were exposed to more than one noxious agent in their environment.

TABLE 3

FREQUENCY OF SYMPTOMS AND FACTORS AFFECTING BREATHING*

Symptoms or Breathing Affectors†	Frequency	Percent
Cough	82	19.3
Phlegm	81	19.1
Short of breath	22	5.2
Fog	10	2.4
Humidity	33	7.8
Cold	29	6.8
Heat	15	3.5
Respiratory infections	29	6.8
House dust	66	15.5
Grain dust	85	20.0
Food	17	4.0
Pollens	79	18.6
Animals danders	31	7.3
Drug	21	4.9

*Based upon information obtained from questionnaire.

†Some patients had more than one symptom or were affected by more than one environmental factor.

The FEV1.0 was abnormal in 18 (4%) of the subjects. In these 18 subjects, the FEF25-75% was definitely abnormal in 15 cases and probably abnormal in the remaining three subjects. The percent predicted FEF25-75% was probably abnormal in 96 (23%) of the subjects. It was definitely abnormal in 53 (12%) of the participants. Almost one-half of the 93 subjects who complained of cough, phlegm, or exertional dyspnea had an abnormal FEF25-75%. The FEV1.0/FVC% was abnormal in 73 (49%) of the 149 subjects in whom the percent predicted FEF25-75% was abnormal. There was no increase in the number of subjects with an abnormal ratio when this was normalized for variations between individuals incident to age.[6]

The distribution of cases with an abnormal percent predicted FEF25-75% by communities is presented in Table 4. The relative concentration of cases did not appear to be greater in the metropolitan (Omaha and Lincoln) as opposed to rural areas.

Thirty (7%) of the 425 subjects had an abnormal Pi phenotype. Sixteen were females, and fourteen were males. The mean age of these subjects was 50.4 years (Table 5). No homozygote phenotype (PiZPiZ) was

TABLE 4

DISTRIBUTION BY COMMUNITIES OF SUBJECTS WITH ABNORMAL PERCENT PREDICTED FORCED EXPIRATORY FLOW$_{25-75\%}$ *

City	Population†	No. of Subjects	Percent of Abnormals
Gordon	2,106	9	6.0
Scottsbluff	14,507	10	6.7
Kimball	3,680	9	6.0
Ogallala	4,976	8	5.4
Red Cloud	2,195	13	8.7
Alma	1,299	14	9.4
Kearney	19,181	8	5.4
Broken Bow	3,734	8	5.4
Pender	1,229	15	10.1
Omaha	347,328	11	7.4
Lincoln	149,518	11	7.4
Fairbury	5,265	6	4.0
Tecumseh	2,058	13	8.7
Nebraska City	7,441	14	9.4
	TOTAL	149	100

*Percent predicted forced expiratory flow between 25-75% of forced vital capacity.

†1970 Census of Population
U.S. Bureau of Census

detected. Seventeen had PiMPiS phenotype, 12 were PiMPiZ, and one was PiFPiM. Nine (30%) of the PiMPiS had an abnormal percent predicted FEF25-75% as did six (20%) of the PiMPiZ group. Sixteen nonsmokers. Also, the proportions of smokers among the normal and abnormal groups were not significantly different.

Fifty percent of the subjects with an abnormal Pi phenotype had an abnormal percent predicted FEF25-75% as opposed to 34% of the remaining study population of 395. This difference between the entire group and the phenotype subgroup was statistically significant at $p < 0.04$.

Only 31% of the variance was accounted for when the dependent variable FEF25-75% $<$ 50% of predicted was estimated by stepwise regression analysis with 30 independent presumed causal variables (Tables 6 and 7). Twenty-five percent of the accounted variance is attributable to the number of pack-years of smoking.

TABLE 5

SUBJECTS WITH ABNORMAL PI PHENOTYPES

Age	Sex	Phenotype	Percent Pred FEF25-75%	Smoking History (Pack-Yrs.)
55	F	MS	53	0.
35	M	MZ	90	10.5
34	F	MS	77	9
48	M	MZ	104	0
58	F	MS	68	0
50	M	MZ	55	10
58	M	MZ	62	7
45	M	MS	84	0
32	M	MZ	102	0
55	F	MZ	43	0
36	M	MZ	116	21.25
42	F	MZ	69	10
57	F	MS	98	0
57	M	MS	51	60
57	M	MS	154	0
59	F	MZ	23	0
60	F	MS	63	0
49	F	MZ	29	12.5
68	M	MS	51	5
50	F	MS	43	60
52	F	MZ	110	31
66	M	MS	132	0
60	F	MZ	72	17.5
36	F	FM	132	0
63	M	MZ	65	36
45	F	MS	97	0.5
59	M	MS	53	0
38	M	MS	103	0
35	F	MS	86	15
56	F	MS	63	2.5

TABLE 6

VARIABLES INCLUDED IN THE STEPWISE REGRESSION ANALYSIS

Independent Variables

- Sex
- Age
- Years of Rural Living
- Years of Community Living
- Air Pollution
- Cold Today
- Family History of Lung Disease
- Symptoms Caused by Exposure to:
  - Fog
  - Humidity
  - Cold
  - Heat
  - Respiratory Infections
  - House Dust
  - Grain Dust
  - Animal Dander
  - Drugs
- Work History Included:
  - Dusty Job Past
  - Dusty Job Present
  - Worked on Farm or Ranch
  - Coal Mine
  - Other Mine
  - Quarry
  - Foundry
  - Welder
  - Exposure to Cotton, Flax, Hemp
  - Asbestos
  - Pottery
  - Exposure to Fertilizers, Herbicides, Pesticides
- Smoke Now
- Smoke Ever
- Pack Years Smoked

Dependent Variable

- FEF25-75% $<$ 50% predicted

TABLE 7

STEPWIDE REGRESSION ANALYSIS BETWEEN DEPENDENT AND INDEPENDENT VARIABLES

Dependent Variable	Multiple R	R2*	Independent Variables†
FEF25-75% $<$ 50% predicted	.56	.09	Breathing Affectors
		.16	Pack Years
		.20	Cold Today
		.24	Years Rural Living
		.27	Years Community Living
		.29	Smoke Now
		.30	Smoke Ever
		.31	Family History of Lung Disease
		.31	Alpha $_1$ Antitrypsin

*Percentage of variance accounted for by independent variables.

†Variables listed in order of entry in the regression equation.

Sideroblastic Anemias *

JAMES R. LOHSE, B.S.
Medical Student,
University of Nebraska Medical Center

JAMES O. ARMITAGE, M.D.
Fellow in Hematology,
University of Iowa Medical Center

and

MALCOLM T. FOSTER, JR., M.D.
Associate Professor of Medicine
University of Nebraska Medical Center

A common problem of physicians in primary care is the diagnosis of anemia. History and physical combined with red blood cell indices and peripheral smear usually provide the necessary data to diagnose common anemias caused by iron or vitamin deficiency. Follow-up hemoglobin and reticulocyte count after appropriate therapeutic trial attest to correctness of diagnosis. Occasionally an anemia is refractory to all the usual hematinics. Among these refractory anemias is a heterogeneous group of disorders called sideroblastic anemias. The following case study and discussion are presented to demonstrate the characteristics, diagnosis and treatment of the various sideroblastic anemias.

Case Report

A 58 year old farm worker was transferred to the University Hospital in October 1970 for evaluation of refractory anemia of three months duration. Anemia was first discovered by his home town physician who observed pallor while evaluating several minor injuries incurred in a farm accident. Prior to transfer the patient received therapeutic trials of folate, vitamin B12, iron and several transfusions. All proved to be ineffective.

History on admission included three recent syncopal spells, increasing fatigue, and exposure to crop sprays. He denied previous use of alcohol, tobacco or drugs. Physical examination revealed only obesity, hepatomegaly, and splenomegaly. Neurologic examination was normal. Stool was hematest negative.

Laboratory workup included RBC 3.5 x 10^6/cc, Hgb 10.8gm/100ml, MCV 94 u^3, MCH 30.5 ugm/100 ml, MCHC 32.8%, PCV 33.2%. Peripheral smear showed moderate anisocytosis, poikilocytosis, burr cells, and hypochromic microcytes and macrocytes. Bone marrow was markedly hypercellular with a myeloid-erythroid ratio of 1:1 and mild megaloblastic changes. Numerous "ringed" sideroblasts were present accompanied by markedly increased iron stores. Liver biopsy revealed hemosiderosis with normal architecture. Serum iron was 53 ugm/100 ml (normal 50-200 ugm/100ml) and total iron binding capacity 168 ugm/100 ml (normal 250-425 ugm/100ml). Other pertinent values included leukocyte alkaline phosphatase 23 units (normal 20-84 units), serum haptoglobin 168mg/100ml (normal 60-200 mg/100ml), and negative Coomb's test.

To date the patient has been hospitalized seven more times for exacerbation of anemia. He has required intermittent maintenance transfusions and been essentially unresponsive to folate, pyriodoxine, prednisone, and liver abstract. Hepatomegaly has increased, and liver biopsies reveal progressive hemochromatosis and cirrhosis. Glucose tolerance test has become abnormal.

Discussion

Patients with sideroblastic anemia typically present complaining of fatigue and occasionally palpitations. History may reveal alcohol abuse, lead poisoning, toxic drug use, underlying disease, or a family history of anemia. Pallor and hepatosplenomegaly may be present. Occasionally the anemia is discovered incidentally.

The pathognomonic feature of sideroblastic anemia is the "ringed" sideroblast in the bone marrow (figure 1). Dacie and Doniach first observed these unique cells in association with severe blood dyscrasia in

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Malcolm T. Foster, Jr., M.D.
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42nd and Dewey
Omaha, Nebraska 68105

1947.[1] "Ringed" sideroblasts are red blood cell precursors with Prussian blue staining ferric granules distributed around the nucleus. More specifically, Bowman has defined "ringed" sideroblasts as having five or more iron containing granules extending over one third or more of the nuclear circumference.[2] This iron is thus distinguished from that which is normally found in 40-60% of normal erythroid precursors. Electron microscopy has identified the perinuclear iron as intermitochondrial and the iron in normal erythroid presursors as intercytoplasmic.[3] It has been hypothesized that an impairment in the heme biosynthetic pathway at the iron and protoporphyrin step results in the accumulation of mitochondrial iron.[4] However, the exact pathophysiology of sideroblastic anemia remains unclear. Therefore, the classification of these disorders in Table 1 will likely be transient.

In addition to "ringed" sideroblasts, bone marrow examination also reveals markedly increased iron and erythroid hyperplasia. In about 20% of the cases, megaloblastic changes, correctable with folate, are seen.[5] Erythroid hyperplasia and increased bone marrow iron are consistent with iron kinetic studies showing ineffective erythropoiesis.[6]

Peripheral blood is typically dimorphic with hypochromic microcytes and/or macrocytes. Poikilocytosis, anisocytosis, and basophilic stippling are often seen. Serum iron is usually high and total iron binding

TABLE 1

Classification of sideroblastic anemias.

Classification of sideroblastic anemias

I. Hereditary
    A. X-linked
    B. Autosomal
II. Acquired
    A. Associated with drugs/toxins/diet
        1. Antituberculin drugs (isoniazide, pyrazinamide)
        2. Chloramphenicol
        3. Immunosuppressive (nitrogen mustard, melphalan, azathioprine)
        4. Lead
        5. Ethyl alcohol
        6. Pyridoxine Deficiency
    B. Associated with Disease
        1. Inflammatory (rheumatoid arthritis, polyarteritis nodosa, infection)
        2. Neoplastic (Hodgkin's disease, lymphoma, carcinoma, multiple myeloma)
        3. Disease of blood forming organ (leukemia, polycythemia vera, myelofibrosis, hemolytic anemia, pernicious anemia and other megaloblastic anemias)
        4. Miscellaneous (myxedema, thyrotoxicosis, uremia, porphyria)
    C. Idiopathic refractory (IRSA)

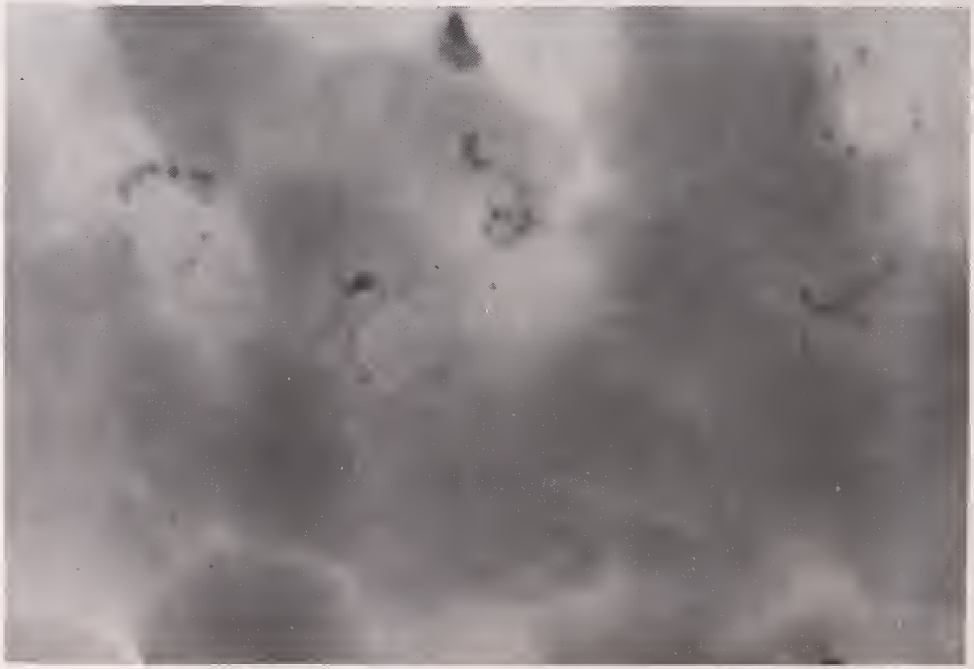


Figure 1: Pathognomonic "ringed" sideroblasts are demonstrated in patient's bone marrow after staining with Prussian blue.

“I Cannot Tell A Lie – It Does Taste Like BANANAS!”

When acute, non-specific diarrhea causes the stomach to revolt, the tasteful counterattack is Donnagel®-PG. Donnagel-PG provides all the benefits of paregoric and – instead of that unpleasant paregoric taste – a delicious banana flavor good enough to make even an expert flip his wig.

Now with child-proof closure

Donnagel®-PG Ⓥ

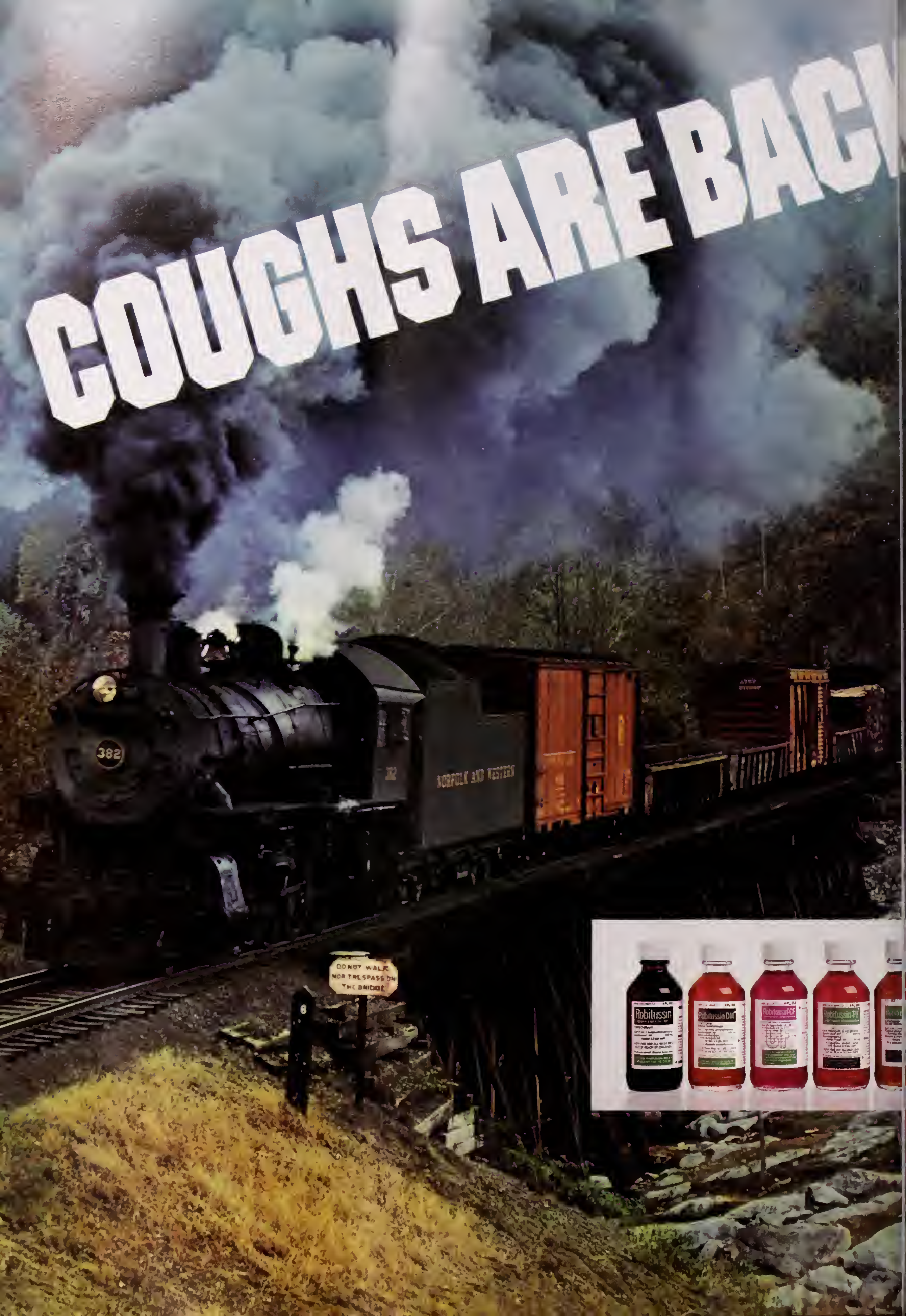
Donnagel with paregoric equivalent

For diarrhea

Each 30 ml. contains:

Kaolin	6.0 g.
Pectin	142.8 mg
Hyoscyamine sulfate	0.1037 mg.
Atropine sulfate	0.0194 mg.
Hyoscine hydrobromide	0.0065 mg.
Powdered opium, USP (equivalent to paregoric 6 ml.) (warning: may be habit forming)	24.0 mg.
Sodium benzoate (preservative)	60.0 mg.
Alcohol, 5%	

A·H·ROBINS A.H. Robins Company, Richmond, Virginia 23220 Member of Certified Medical Representatives Institute


COUGHS ARE BAC
382
NORFOLK AND WESTERN
DO NOT WALK NOR TRESPASS ON THE BRIDGE
Robitussin
Robitussin DM
Robitussin-CF
Robitussin-PE

CLEAR THE TRACT

in coughs of colds, "flu" and u.r.i.– clear the tract with the famous Robitussin® Line!

The 5 members of the Robitussin® family all contain the expectorant, guaifenesin, to help clear the lower respiratory tract. Guaifenesin works systemically to help stimulate the output of lower respiratory tract fluid. This enhanced flow of less viscid secretions promotes ciliary action and makes thick, inspissated mucus less viscid and easier to raise. As a result, dry, unproductive coughs become more productive and less frequent.

For productive and unproductive coughs

Robitussin®

Each 5 ml teaspoonful contains:

Guaifenesin, NF	100 mg
Alcohol, 3.5%	

For severe coughs

Robitussin A-C® Ⓥ

Each 5 ml teaspoonful contains:

Guaifenesin, NF	100 mg
Codeine Phosphate, USP	10.0 mg
(warning: may be habit forming)	
Alcohol, 3.5%	

Non narcotic for 6-8-hour cough control

Robitussin-DM®

Each 5 ml teaspoonful contains:

Guaifenesin, NF	100 mg
Dextromethorphan Hydrobromide, NF	15 mg
Alcohol, 1.4%	

Decongests nasal passages and sinus openings as it helps relieve coughs

Robitussin-PE®

Each 5 ml teaspoonful contains:

Guaifenesin, NF	100 mg
Pseudoephedrine Hydrochloride, NF	30 mg
Alcohol, 1.4%	

Decongestant action helps control cough and clear stuffy noses and sinuses. Non narcotic.

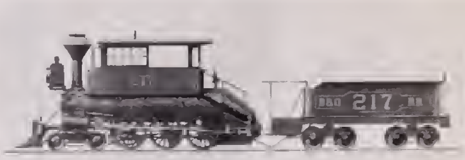
Robitussin-CF®

Each 5 ml teaspoonful contains:

Guaifenesin, NF	50 mg
Phenylpropanolamine Hydrochloride, NF	12.5 mg
Dextromethorphan Hydrobromide, NF	10 mg
Alcohol, 1.4%	

All Robitussin formulations available on your Rx or Recommendation.

For many years Robins has spotlighted the expectorant action of the Robitussin cough formulations by featuring action photographs of steam engines like the one on the preceding page. In keeping with this tradition, last year the company commissioned a well-known illustrator to render full-color drawings of several classic locomotives . . . accurate to the minutest detail. Chances are you requested and received the first locomotive in this series, The William Mason, last winter. Now, the second one is available. (See below). To order your print suitable for framing, write "Robitussin Clear-Tract Engine #2" on your Rx pad and mail to "Vintage Locomotives," Dept. T4,
A. H. Robins Company,
1407 Cummings Drive,
Richmond, Va. 23220.



The Davis Camel (1873)

A·H·ROBINS

A. H. Robins Company, Richmond, Va. 23220

◀ *OUR PHOTO: Norfolk & Western Branch Train No. 202 west bound near Alvarado, Va (Oct., 1956). This line reaches the highest point of any railroad East of the Rockies (elevation 3,577 ft) with a minimum grade of 3%. It crosses 108 bridges, some 700 ft. long! Photo by O. Winston Link.*

capacity low. Iron deposition is often found in liver, pancreas, and heart. Symptomatic hemochromatosis is a rare complication.[5]

When no predisposing factor can be identified, a patient with sideroblastic anemia is said to have either the hereditary or the idiopathic refractory variety. Table 2 compares consistently observed differences between hereditary sideroblastic anemia and idiopathic refractory sideroblastic anemia (IRSA). While positive family history of anemia and early age of onset point to heredity, the diagnosis of IRSA is one of exclusion. Kushner et al have suggested the following criteria:[7]

1. Chronic anemia.
2. "Ringed" sideroblasts in the bone marrow.
3. Lack of evidence of congenital or hereditary disorder, such as an onset at or near birth or positive family history.
4. Lack of evidence of an associated inflammatory or neoplastic disease, nutritional deficiency, or a well-defined exposure to drugs or toxins which produce sideroblastic anemia.
5. Failure to respond to the usual hematinics and large doses of vitamin B6.

Dameshek[8] has advocated that IRSA is an early phase of erythemic myelosis or the Di Guglielmo syndrome. Kushner, however, contends that there is only a slightly increased incidence of leukemia with IRSA. Of 94 patients reviewed, only 7 terminated with acute myelocytic leukemia. Also against Dameshek's hypothesis is a median survival time of 10 years after diagnosis of IRSA.[7] Possibly this confusion results from mistaking smoldering acute leukemia for IRSA. Erythroleukemia may be distinguished from IRSA by PAS positive material in normoblasts.[5]

TABLE 2

Observable differences between hereditary sideroblastic anemia and idiopathic refractory sideroblastic anemia.

Parameter	Hereditary	Idiopathic Refractory
1. Age of onset	infancy to young adult	elderly
2. Peripheral RBC	microcytic	macrocytic
3. Anemia	severe (Hgb 4-10g/100ml)	moderate (Hgb 7-12g/100ml)
4. "Ringed" sideroblasts	10-40% in polychromatophilic or orthochromic stage	45-95% in all stages
5. Free Erythrocyte protoporphyrin	decreased	increased
6. Leukocyte Alkaline Phosphatase	....	decreased
7. Response to Pyridoxine	50% respond	few respond

The first step in treating sideroblastic anemia is to eliminate all exposure to toxic drugs, lead, alcohol, or other suspected toxins. If an underlying disease can be identified, successful treatment of that disease will often cure the anemia. Remissions in neoplastic diseases can result in dramatic improvement of the anemia.[9]

When no underlying cause can be identified, a therapeutic trial of pyridoxine is indicated.[7] Nearly one half of the patients with hereditary sideroblastic anemia and many with the idiopathic variety will respond.[5] Though the daily requirement for pyridoxine is only 1-2 mg, much larger doses must be given daily for a minimum of one month to determine if the anemia will respond. Fortunately, these large doses cause no adverse side effects.[10] If the anemia is megaloblastic, folic acid should be given, though generally the effect on the anemia will be small.[7]

If the above measures fail to prevent the need for maintenance transfusions, androgen therapy may be warranted.[11] Unlike pyridoxine, androgens may have serious side effects such as fluid retention, cholestatic jaundice, and masculinization. In rare instances other measures have been effective. Among these is the use of human plasma material,[12] and Valentine's crude liver extract.[13] Removal of excess iron by phlebotomy or desferoximine B may not only increase erythropoiesis, but also help prevent hemochromatosis.[14]

Summary

The sideroblastic anemias are a rare heterogeneous group of microcytic and macrocytic anemias which are refractory to the usual hematinics and often present a diagnostic dilemma. The diagnosis is dependent on observing the pathognomonic "ringed" sideroblasts in the bone marrow along with increased iron stores and erythroid hyperplasia. Treatment consists of first eliminating any underlying cause, and if this is impossible, using therapeutic trials of pyridoxine, folate, and androgens. Prognosis is dependent upon the presence of treatable underlying disease and response to pyridoxine.

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Down Memory Lane

1. This is the age of preventive medicine — at least at no time in the past has prevention of disease been given, by the medical profession, the consideration it is now receiving.

2. It would appear that the study of the thyroid begins and ends with iodin.

3. This spring when our city schools closed an epidemic of whooping cough had just begun. The festivities which go with the closing of the school added fuel to the flame so I had occasion to meet 71 cases of pertussis in my locality since the middle of May, 1926. I treated everyone with vaccine if permitted to do so.

4. Physicians suffer almost daily annoyances from the narcotic law.

5. Omaha was the scene, during the week of September 15th, of the annual meeting of the Medical Society of the Missouri Valley.

6. The common custom of the specialist taking all of the available cash and the referring physician waiting for his until the farmer has harvested his next season's crop, is not ethics of fair dealing.

7. The Dodge County Medical society and Lutheran church interests are "talking" a $150,000 hospital at Fremont.

8. A physician can no longer count the pulse, take the temperature, look at the tongue and write a prescription and be considered as practicing efficient medicine.

9. Pyelitis is a very common disorder in infants and children.

10. It is very surprising how even a small quantity of sugar will cause a patient to snap out very quickly of all the dangerous and threatening symptoms of an acidosis induced by hypoglycemia.

Nebraska State Medical Journal
October, 1926.

PRESIDENT'S PAGE

FORD or CARTER ?

Will we recognize the practice of medicine, as we know it today, during the next presidential campaign four years from now? Will you and I still be in the private practice of medicine? Or, will we be federal employees lost in a maze of bureaucracy frustrated in our attempt to provide treatment for our patients?

At this stage of the 1976 presidential campaign, the future of medicine appears quite clear. Both the Republican party and the Democratic party have expressed their views. Are you cognizant of these views?

In a recent issue of *Legislative Roundup*, the campaign platform of each party was succinctly summarized. It might be well for each of us to review these projected goals.

FORD

"Every American should have access to quality health care at an affordable price . . . We support extension of catastrophic illness protection to all who cannot obtain it . . . The Republican Party opposes compulsory national health insurance . . . The most effective, efficient and economical method to improve health care and extend its availability to all is to build on the present health delivery and insurance system, which covers nine out of every ten Americans . . . We oppose excessive intrusions from Washington in the delivery of health care. We believe in preserving the privacy that should exist between a patient and a physician, particularly in regard to the confidentiality of medical records."

CARTER

"We need a comprehensive national health insurance system with universal and mandatory coverage. Such a national health insurance system should be financed by a combination of employer-employee shared payroll taxes and general tax revenues . . . We must achieve all that is practical while we strive for what is ideal, taking intelligent steps to make adequate

health services a right for all our people . . . Maximum personal interrelationships between patients and their physicians should be preserved. We should experiment with new forms of health care delivery to mold a national health policy that will meet our needs in a fiscally responsible manner . . . National health insurance must also bring about a more responsive consumer-oriented system of health care delivery . . . We must have national health insurance with strong built-in cost and quality controls. Rates for institutional care and physicians' services should be set in advance, prospectively."

As a physician practicing medicine in the state of Nebraska, which platform can you endorse? Will you vote accordingly? The decision is yours. You do have a voice in the matter by asserting your stand in your community and by casting your ballot on election day. Exercise your franchise and VOTE ON NOVEMBER 2, 1976.

FORD or CARTER
Is there any
?

Harlan L. Papenfuss, M.D.
President

The Auxiliary

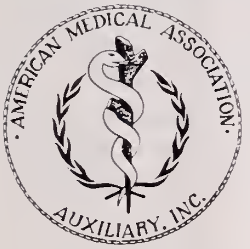
CONVENTION HIGHLIGHTS — DALLAS 1976

These are the delegates you sent to the AMAA Convention. They brought back materials and knowledge to aid you. Call on them!

Delegates to the AMAA Convention [left to right]: Mrs. Y. Scott Moore, immediate past President; Mrs. Gordon Francis, President; Mrs. Guy Matson, President-elect and Project Bank Co-ordinator; and Mrs. Leland Olson, Legislative Area Chairman.

During the roll call of states, three screens projected the silhouette of each state, its seal, and its geographical location. The stage setting using flowers, the state flags and featuring the Liberty Bell replica loaned by Leta Mae Young, National President-elect, was a stirring background when Mrs. Moore gave her State Report before the House of Delegates on the progress of the Health Galleries.

Mrs. Leland Olson, in recognition of her ability, was elected to the Nominating Committee from the north central region.



A new National Seal, as designed by Mrs. Abdul F. Naji, Ohio, was adopted. Nebraska Auxiliary submitted one of the thirty entries but was not chosen one of the nine finalists. A quilt, with a block contributed by each state president stitched in a design to represent that state, was presented to the National President, Mrs. Betty Wilkinson.

As the result of a vote by mail the members of WA-SAMA chose to disband. Consequently, to retain their interest and participation, a constitutional amendment was passed enabling them to be a member of the National Auxiliary as a junior/affiliate. They will be encouraged to join the county auxiliaries where feasible.

Bess Myerson left her suitcase behind but not her warmth, wit, and charm. Minus make-up, chic dress and with her hair concealed by a scarf she told of her encounters as consumer advocate. She chastised today's consumers for what she called "a terminal case of indifference," and encouraged them to quit supporting inferior products. She believes that marketplace problems are a reflection of the Nation's morality as a whole and reminded those present that they vote for products every time they shop at the grocery store.

At a luncheon sponsored jointly with the AMA, Dr. Michael DeBakey spoke on "Advances in Cardiovascular Disease." He explained the various types of heart disease and the methods which have been developed to treat each one. His lecture was illustrated by slides and a film of an actual coronary bypass operation.

The opening night of MAME starring Angela Lansbury was given solely for the auxilians and their guests preceded by a sumptuous buffet at the Crystal Terrace Restaurant also located in the Music Hall.

Plan to join your officers next year in San Francisco, June 19-22.

Reminders

October is Immunization Month. The flu vaccine is scheduled to be distributed to physicians through certain hospitals and county health departments. Volunteer your services to your local medical society. Important as this program is, parents should still be encouraged to see that protection has been given for "the seven" — measles, mumps, rubella, polio, diphtheria, tetanus and pertussis.

How safe are the streets in your town for bicyclists, automobile drivers and pedestrians? Safety on the Street (S.O.S.) is another featured program for October. Write to me if you need a brochure of program suggestions or a slide presentation on prevention of rape. Law enforcement officers are very cooperative in providing speakers.

Our Workshops are October 18 at Fremont, October 19 at Norfolk, and October 22 in North Platte. All Members-at-Large are especially welcome! Hope to see you there!

Harriette Francis
State President

In Memoriam

By medicine life may be prolong'd
yet death
Will seize the doctor too.
—Shakespeare

DR. WILLIAM T. HUGHES

Doctor William T. Hughes died on August 8, 1976, at the age of 80. He was born at Gretna on November 6, 1895.

He graduated from Creighton University School of Medicine in 1930. After graduation he practiced in Bancroft until 1960. He then practiced in Gretna until his retirement in 1965.

He is survived by his wife and several children.

DR. RAY O. HUMMEL

Doctor Ray O. Hummel died on August 9, 1976, at the age of 96. He was born in Humboldt on March 12, 1880.

He graduated from the University of Nebraska in 1902 and the Northwestern University Medical School in 1905.

He retired from general practice in Lincoln in 1953. He then moved to Richmond, Virginia, in 1973.

He is survived by several children.

DR. RUTH A. WARNER

Doctor Ruth A. Warner died on June 20, 1976, at the age of 86.

She graduated from the University of Nebraska College of Medicine in 1916.

Doctor Warner practiced medicine in Lincoln for 56 years until her retirement in 1972.

Doctor Warner is a Past President of the Business and Professional Women's Association in Lincoln. She also formed the Medical Research Foundation, Inc. to financially assist female students in the allied health field.

She is survived by a sister and several nieces and nephews.

DR. ARNOLD I. WEBMAN

Doctor Arnold I. Webman died on August 15, 1976, at the age of 70. Doctor Webman was born in Poland on February 2, 1906.

He graduated from the University of Chicago in 1930 and obtained his medical degree from the University of Nebraska College of Medicine in 1934.

He practiced in Superior prior to moving to Lincoln in 1963.

He is survived by his wife and several children.

Between Cases

Department Of Statistics.

Breast cancer kills 32,000 women yearly in the United States.

I Read It.

Fifty percent of the doctors graduated in the bottom half of their class.

I was in the upper 95 percent of mine.

Section Of Therapy.

Sauerkraut is good for a cold.

German proverb.

Words I Can Do Without.

As of the moment, it has recently come to my attention, to whom it may concern, protectee, trivialese.

The physical.

Cheyenne-Stoke respiration.

How We Die.

O is with your mouth open. And Q is with your mouth open and your tongue sticking out. And the cornflakes position is when they find the patient dead with his face in the breakfast food.

Al: In the boom boom room, by David Rabe.

On Time.

Time is but the stream I go a-fishing in. Thoreau.

Of time you would make a stream upon whose bank you would sit and watch its flowing.

Gibran.

Section On Statistics.

About one in every 2,000 babies in the U.S. is born with a significant degree of deafness.

Quote Unquote.

We must welcome the future, remembering that soon it will be the past; and we must respect the past remembering that once it was all that was humanly possible.

Santayana.

On Hospitals.

I had learned my first important hospital lesson. If you're in a private room, you don't have to obey the rules. All you have to do is close the door while you're disobeying them.

Betty Rollin: First, you cry.

Heard On TV.

Contumacious, upflux, excellent quickness, techniquewise, up to a hundred dollars and more.

—F.C.

Our Medical Schools

Pediatrics.

The University of Nebraska Medical Center's Center for Continuing Education will conduct a course in practical prediatrics September 29, in conjunction with the dedication of the pediatric unit of Mary Lanning Hospital, Hastings.

Dr. Paul Mooring, chairman of the graduate education committee, of the Medical Center's department of pediatrics, is a course coordinator, along with Steven Bradberry, assistant administrator of Mary Lanning.

The course will be conducted at the Garden on North Highway 281, Hastings.

A registration fee of $25 includes dinner. The course is acceptable for four prescribed hours by the American Academy of Family Physicians.

Chest diseases.

The Medical Center's fourth annual conference on chest diseases will be held at the Medical Center November 4 and 5. Coordinator is Dr. Irving Kass, professor of internal medicine. The registration fee is $70.

Neurology.

The Medical Center will sponsor a neurology course in Beatrice on November 10, and in McCook on November 17. Registration fee is $25. The course is approved for three prescribed hours by the American Academy of Family Physicians.

Dr. F. Miles Skultety, professor of neurosurgery and neuroanatomy, is coordinator of the course.

Disabilities, developmental.

A course on developmental disabilities will be conducted Thursday and Friday, December 2 and 3, at the Center for Continuing Education. The course is acceptable for twelve hours of AAFP credit.

Topics to be covered include management of high risk pregnancies, neonatal and developmental disorders; early identification of developmental disorders, office screening procedures, and the family of the disabled child.

The course's registration fee is $70 for physicians and $50 for other health professionals.

Dr. Donald F. Wuori of the Meyer Children's Rehabilitation Institute, is coordinator of the course.

WashingtoNotes

Cost of drugs.

The Maximum Allowable Cost (MAC) drug program went into effect towards the end of August with little visible activity. First signs of life will probably appear in the late fall when MAC's advisory committee will meet to consider the initial prescription drugs for the program. Court decisions in the various counter suits, including that of the American Medical Association, are not expected soon.

The three-year-old brainchild of former Health, Education and Welfare Secretary Caspar Weinberger, MAC sets price ceilings on certain widely used drugs in an effort to discourage prescription of brand-name products. Physicians would have to stipulate that brand-name drugs for Medicare-Medicaid beneficiaries are medically necessary on the prescription in order to prevent the pharmacist from filling the order with the lower cost generic drug. In states with antisubstitution laws, patients would have to make up the difference in price if a brand-name is ordered.

MAC had been scheduled to go into effect four months ago, but retail druggists joined drug manufacturers and the AMA in protest, causing the four-months postponement.

In a letter to HEW Secretary David Mathews, the Pharmaceutical Manufacturers' Association said the original postponement was to resolve confusion and opposition surrounding MAC. "It is our observation that such hopes have not been realized, and in fact, the situation is even more chaotic today," said PMA President C. Joseph Stetler.

The AMA and PMA have a consolidated suit against MAC pending in Chicago District Court. Other litigation has been launched by the National Association of Retail Druggists (NARD), the Private Medical Care Foundation, Inc., and Congress of County Medical Societies. Citing these, along with a petition filed with HEW on July 27 by the American Pharmaceutical Association (APHA), and the "continuing concern," and "growing dissatisfaction" of many individuals and organizations, Stetler said, "there is every reason to further delay . . . the MAC program."

Weinberger claimed MAC would save the government $60 million a year but another former HEW Secretary, Robert Finch, disputed the claim. Finch, now a private citizen in California, said the bureaucratic cost-of-running the program would offset any possible savings. Finch also argued that bioequivalency cannot be demonstrated at present.

Physicians for the most part will be affected with Medicaid patients.

In addition to the control program, HEW will send all physicians a list of most frequently prescribed drugs along with the prices community pharmacies pay for them.

No federal sanctions are provided for physicians who decide to write out the "medically necessary" prescription message.

HEW said about one fourth of commonly prescribed drugs are available from multiple sources. However, the number for which bioequivalence problems can be ruled out is smaller.

The reimbursement that a pharmacist receives for drugs he provides Medicare and Medicaid patients will be based on an estimate of his cost of buying the drug plus a dispensing fee, or on his usual charge to the general public, whichever is the smaller. Program agencies such as the state Medicaid program would make the estimates according to price information supplied on a regular basis by HEW.

Health insurance & abortion.

The Republican Party has gone on record against compulsory National Health Insurance. The platform plank on health adopted by the delegates at the convention in Kansas City was in sharp contrast to the Democratic plank endorsing a comprehensive national plan financed by regular and Social Security taxes.

The GOP statement on health supported

extension of catastrophic protection "to all who cannot obtain it." The private health insurance system should be utilized to "assure adequate protection for those who do not have it," the platform said. "Such an approach will eliminate the red tape and high bureaucratic costs inevitable in a comprehensive national program."

The platform on health did not condemn outright any national health insurance program as a group of conservatives led by Sen. Jesse Helms (R-N.C.) had urged. The flat opposition to a compulsory NHI program, however, provided a sufficiently broad umbrella to mount an attack on many NHI proposals and specifically on the Kennedy-Labor bill. Some delegates interpreted the plank as opposition to any comprehensive national plan.

President Ford this year did not renew his previous endorsement of the Nixon Administration's NHI plan calling for employers to provide employees with comprehensive private health insurance, federalizing Medicaid, and subsidizing a catastrophic benefit. Instead, Ford asked Congress for a catastrophic benefit for Medicare beneficiaries. He said the so-called mandated plan would be too expensive at present.

On abortion, the Republicans supported "the efforts of those who seek enactment of a constitutional amendment to restore protection of the right of life for unborn children." The platform conceded that the issue "is one of the most difficult and controversial of our time . . . undoubtedly a moral and personal issue" involving "complex questions relating to medical science and criminal justice."

The Supreme Court's ruling on abortion permitting it until the last stages of pregnancy was "an intrusion into the family structure through its denial of the parents' obligation and right to guide their minor children," said the platform.

Coming Meetings

CRIPPLED CHILDREN'S CLINICS
- October 9 — Grand Island, Nebraska Veterans Home
- October 30 — Hartington, Trinity Lutheran Church
- November 13 — Ainsworth, Elementary Grade School

INTERNATIONAL FOOD ALLERGY SYMPOSIUM sponsored by the American College of Allergists, October 13-15, 1976, Four Seasons Sheraton Hotel, Toronto, Ontario, Canada. For information contact: Frances P. White, 2141 14th Street, Boulder, Colorado 80302, Tel. 303-447-8111.

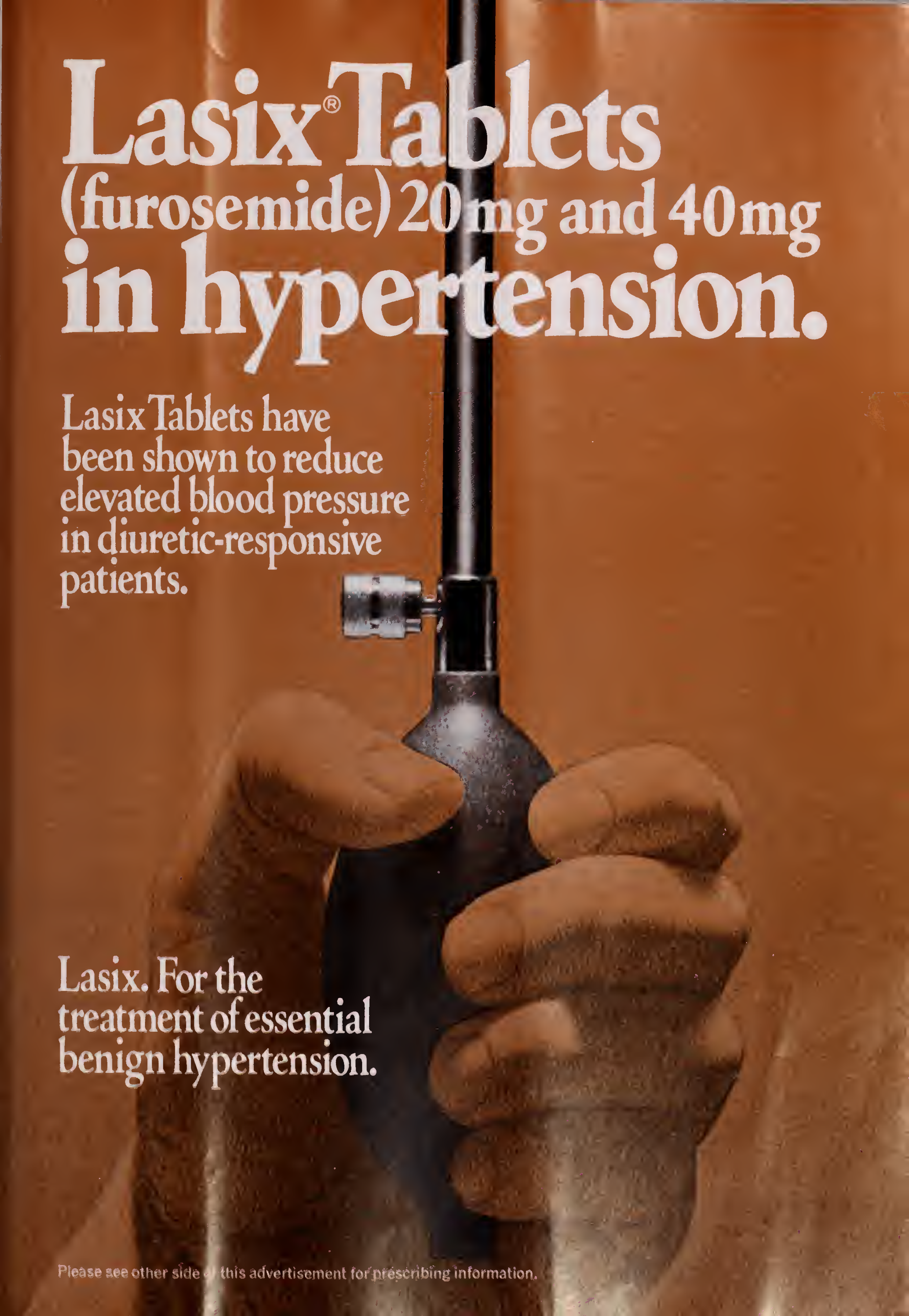
44th ANNUAL POSTGRADUATE ASSEMBLY, OMAHA MID-WEST CLINICAL SOCIETY — October 25, 26, 27, 1976. Omaha Hilton Hotel, Omaha, Nebraska. For information please write to: Mrs. Janet S. Noll, Executive Secretary, Omaha Mid-West Clinical Society, 540 Medical Arts Building, Omaha, Nebraska 68102.

23rd ANNUAL SCIENTIFIC SESSION OF THE NEBRASKA OB-GYN SOCIETY MEETING (N.O.G.S.). This meeting will be held at the Frontier Hotel in Las Vegas, Nevada on December 2, 3 and 4, 1976. Dr. G. W. Orr is the program chairman, Dr. Ted Koefoot is local arrangements chairman.

AMERICAN MEDICAL ASSOCIATION — 30th Clinical Convention, December 4-8, 1976, Philadelphia, Pennsylvania.

NEBRASKA MEDICAL ASSOCIATION ANNUAL SESSION — May 1-4, 1977, Holiday Inn, Omaha, Nebraska.

INDIANA CHAPTER ACEP-EDNA EMERGENCY MEDICINE SEMINAR will be held at the Airport Hilton Inn, Indianapolis, Indiana on May 11 through May 14, 1977. CME Credits Applied For: 20 hours; Co-sponsor: Indiana University School of Medicine. Fee: $50.00 - $100.00. Contact:



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A brief summary of the Prescribing Information for
Lasix® (furosemide) Tablets 20 mg and 40 mg

WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO_2 and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperuricemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering curare or its derivatives to patients undergoing therapy with Lasix (furosemide), and it is advisable to discontinue Lasix (furosemide) for one week prior to any elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticaria and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, or diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (with purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported; however, relationship to the drug has not been established with certainty: sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinary frequency.

Dosage and Administration

ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as a single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individually determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day in those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged periods, careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent as soon as Lasix (furosemide) is added to the regimen to prevent excessive drop in blood pressure. As the blood pressure falls under the potentiating effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infants and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white, round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information

Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD_{50} of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD_{50} ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD_{50} of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often became dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of the drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in rats and dogs. In a one-year study in rats, renal tubular degeneration occurred, with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed calcification and scarring of the renal parenchyma at all doses above 10 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 17 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused maternal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate fetal lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of the renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.

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David Gettle, M.D., 10005 Hillsdale, Carmel, Indiana 46032, 317-844-7105. Note: This seminar is in conjunction with the first day of Time Trials for the Indianapolis 500 Memorial Day Race.

AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 18-23, 1977, San Francisco, California.

POSTGRADUATE EDUCATION FOR PEDIATRICIANS AND OBSTETRICIANS — The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate programs for pediatricians and obstetricians in the field of Maternal and Child Health and Family Planning. Program areas available at the present time include nine-month programs in Maternal and Child Health, in the Health of the School-Age Children and Youth, and Day Care and the Preschool Child. Twenty-one month programs in Care of Handicapped Children and Comprehensive Health Care, and a thirty-three month program in Perinatology are also available. These programs all lead to the degree of Master of Public Health, and tax-exempt Fellowship support is available. Applications are now being accepted for the group entering September, 1977. For information, write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

NEBRASKA MEDICAL ASSOCIATION FALL SESSION — September 30 - October 1 & 2, 1977, Lincoln Hilton Hotel, Lincoln, Nebraska.

COLONOSCOPY TRAINING PROGRAM — The New York Society for Gastrointestinal Endoscopy supported by a Cancer Control Grant from the American Cancer Society, will now offer two week training programs in the techniques of fiberoptic colonoscopy for the detection and management of colonic neoplasm to qualified physicians and surgeons. The training program will be conducted at several institutions in New York City. Preference will be given to those physicians and surgeons who have had previous experience with fiberoptic endoscopy and who are from community where fiberoptic colonoscopy is not yet readily available. Please send curriculum vitae to: Paul Sherlock, M.D., Chief Gastroenterology Service, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, New York 10021.

Books

Solved: the riddle of heart attacks; by Broda O. Barnes, M.D., Ph.D. and Charlotte W. Barnes, A.M.; paperback, 84 pages; published 1976 by Robinson Press, Fort Collins, Colorado; $2.50.

First, you cry; by Betty Rollin; 206 pages, hard cover $7.95; published 1976 by J. B. Lippincott Company, Philadelphia and New York.

Ms. Rollin has been an actress, an editor, and a news correspondent. She had a lump in a breast, had it looked at, but not removed, after mammography; and some time later, underwent biopsy and mastectomy.

It is a story of how all of this feels, told by an intelligent patient who writes very well. She brings you through diagnosis, surgery, and postoperative care. She tells you about soul-searching questions, and gives you some of the answers. There is a great deal about her personal life, which is somehow tied in with cancer and surgery. You will find courage and honesty and easy reading.

This is a good book.

—F.C.

Lovey — a very special child; by Mary MacCracken; 189 pages; hard cover $7.95; published 1976 by J. B. Lippincott Co., Philadelphia and New York.

I have read at least one story like Lovey before, and while this one is not a literal account, and while it tends to more sweetness than I want at times, it does not somehow come through as a contrived tale. It is the essence of the author's experience and it cannot be romance; Miss MacCracken has taught emotionally disturbed and learning-disabled children and she holds a master's degree in this area.

This is about Hannah who is withdrawn and called retarded, and who is lucky to get Mary to be her teacher; but it is a little bit about Lovey's classmates, too. Miss MacCracken's writing is good, it is very good, and her teaching is superb. I read the whole book; you read it, too.

—F.C.

Review of medical microbiology; by Ernest Jawetz, Ph.D., M.D., Joseph L. Melnick, Ph.D., and Edward A. Adelberg, Ph.D.; 542 pages; limp cover $10.00; published 1976 by Lange Medical Publications, Los Altos, California.

This book was apparently begun in 1954, reappears every two years, and is now in its 12th edition. There are 40 chapters, tables, figures, a good index, and general references, but the references are not numbered and are more properly a bibliography.

The print is good and reading is easy. The test is of course up-to-date. We live in a microbial world, and sometimes these little things help us and sometimes they do us in. These 500-odd pages afford us a good discussion of our coexistence or struggle with these tiny fellows. Microbiology books get bigger, but microbiology gets bigger, and while prices do, too, two cents a page is a bargain.

It has everything I looked for: viruses, antibiotics, normal flora, influenza, hepatitis, bacteriophage, tumor immunity, vaccines, and poliomyelitis. I like it.

—F.C.

Medicinews

Political platforms.

The Democratic and Republican campaign platforms, now finalized, contain several items of particular interest to medicine. Below is set out a summary of some of those items.

Health — Republicans: "Every American should have access to quality health care at an affordable price . . . We support extension of catastrophic illness protection to all who cannot obtain it. The Republican Party opposes compulsory national health insurance. The most effective, efficient and economical method to improve health care and extend its availability to all is to build on the present health delivery and insurance system, which covers nine out of every ten Americans . . . We oppose excessive intrusions from Washington in the delivery of health care. We believe in preserving the privacy that should exist between a patient and a physician particularly in regard to the confidentiality of medical records."

Democrats: "We need a comprehensive national health insurance system with universal and mandatory coverage. Such a national health insurance system should be financed by a combination of employer-employee shared payroll taxes and general tax revenues . . . We must achieve all that is practical while we strive for what is ideal, taking intelligent steps to make adequate health services a right for all our people . . . Maximum personal interrelationships between patients and their physicians should be preserved. We should experiment with new forms of health care delivery to mold a national health policy that will meet our needs in a fiscally responsible manner. National health insurance must also bring about a more responsive consumer-oriented system of health care delivery . . . We must have national health insurance with strong built-in cost and quality controls. Rates for institutional care and physicians' services should be set in advance, prospectively."

With regard to **Abortion**, the Republican Party Platform favors a "continuance of the public dialogue on abortion and supports the efforts of those who seek enactment of a constitutional amendment to restore protection of the right to life for unborn children." The Democratic Party states: "We fully recognize the religious and ethical nature of the concerns which many Americans have on the subject of abortion. We feel, however, that it is undesirable to amend the U.S. Constitution to overturn the Supreme Court decision in this area."

Other Programs — Both the Democratic and Republican platforms support: Mental health programs; preventative health programs; and alcoholism and drug abuse programs. The Democratic platform specifically calls for increased federal aid to medical research laboratories which are seeking cures for specific conditions. The Republican platform states: "While we support valid medical and biological research efforts which can produce life-saving results, we oppose any research on live fetuses. We are also opposed to any legislation which sanctions ending the life of any patient." Both parties support an upgrading of health care and other services to Indians, and an improvement of services for and to the handicapped. Both also support broadened benefits for the elderly.

Omaha and HMO.

Federal requirements and an overabundance of hospital beds in the greater Omaha metropolitan area, as well as other local conditions, stand in the way of development of a federally certified health maintenance organization (HMO). Officials of Missouri Valley Group Health, a nonprofit organization made up of community leaders, arrived at this conclusion after nearly four years of study.

The intent of a health maintenance organization is to encourage people to maintain good health by providing a wide range of benefits including more frequent visits to the physician's office, to contain the cost of providing health care and to share the economic risk with the health care providers.

Ingo Angermeier, Acting Executive Director of Missouri Valley Group Health, said a study begun early in 1972 clearly indicates that a federally certified HMO cannot be developed in the metropolitan Omaha area for several reasons. He noted that the limited outpatient coverage now available through insurance companies causes low premiums. Additionally, the cost of hospitalization is high because of the necessity to pay for an excess of beds. According to the Health Planning Council of the Midlands, the Omaha area has 7.2 beds per 1,000 population, compared to 4.3 for the nation.

Traditional health insurance benefits emphasize coverage for hospitalization. Federally certified HMOs must also include complete outpatient care coverage, including physician's office visits. Financing this more extensive ambulatory coverage, in addition to the traditional hospital coverage, would require a monthly family premium in excess of $97. Considering that the prevailing Omaha insurance coverage, which frequently includes a deductible clause and copayment by an employer, costs approximately $55, an HMO premium would not be practical.

In light of these findings, the Missouri Valley Group Health Board of Directors has concluded that the interests of the consumers it represents will best be served by discontinuing the expenditure of additional money to support HMO organizational activities in the Omaha area.

Missouri Valley Group Health was incorporated in May 1972 specifically to investigate the feasibility of developing a prepaid health care delivery system.

In October 1974 and in May 1975 the organization was awarded federal grants to determine the feasibility of establishing an HMO. During the process of applying for a third federal grant, the Missouri Valley Group Health Board of Directors initiated a reassessment of the financial and organizational requirements of such a system. This self-assessment resulted in the conclusion that a federally certified health maintenance organization was not feasible for Omaha at this time and further expenditures of tax dollars for additional feasibility studies is not warranted.

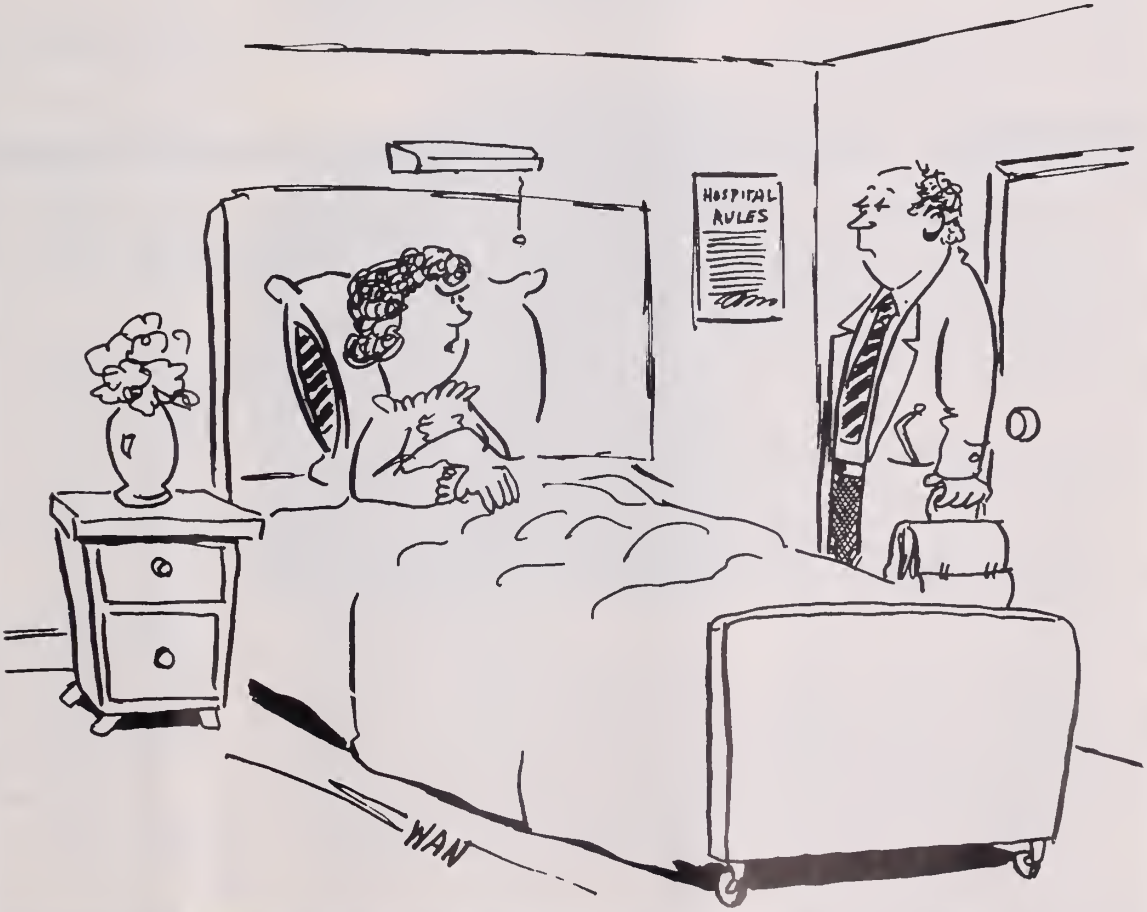
Crohn Disease of Colon Presenting as Irritable Bowel Syndrome — M. Ward (Western General Hosp, Edinburgh) Br Med J 1:748-749 (March 27) 1976.

Three patients are described in whom an initial clinical diagnosis of the irritable bowel syndrome was made on the basis of abdominal pain and diarrhea occurring in young patients who were tense and introspective. This diagnosis was supported by sigmoidoscopy, barium enema, and barium meal and follow-through, the results of which in each patient were entirely normal. The correct diagnosis, Crohn disease of the colon, was revealed by the typical granulomatous inflammation of a routine rectal biopsy. The importance of routine rectal biopsy in the investigation of apparent irritable bowel syndrome cases is stressed. This procedure should be performed even if sigmoidoscopy and barium studies reveal no abnormality.

Influence of Coffee and Caffeine on Gastrin and Acid Secretion in Man — H. W. Borger et al (Klinik fur Allgemeinchirurgie der Universitat, Gottingen, West Germany) Dtsch Med Wochenschr 101:455-457 (March 19) 1976.

Intragastric instillation of coffee, decaffeinated coffee, and pure caffeine in humans substantially stimulated gastric secretion. After intragastric caffein, basal serum gastrin concentrations were not changed. However, after instillation of coffee and decaffeinated coffee, serum gastrin increased substantially. Thus, acid secretion was much greater after coffee and decaffeinated coffee than after caffeine. Roasted products seem to be responsible for the gastrin-releasing effect of coffee.

Those dreams are true which we have in the morning, as the lamp begins to flicker.
Ovid.



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ADVERTISERS' INDEX

B

Bemidji Clinic, Ltd. 23
Burroughs Wellcome Co. 13

D

Dairy Council of Central States, Inc. 7
Donley Medical Supply Co. 23

H

Hoechst-Roussel Pharmaceuticals, Inc. 9, 10, 11, 12, 400A, 400B

L

Eli Lilly and Company 24

M

Mallinckrodt, Inc 5
Medical Protective Company (The) 19

N

Norfolk Printing Co., Inc. 18
North Central Medical Conference 6

P

Pharmaceutical Manufacturers Association 16, 17

R

A. H. Robins Company 390A, 390B, 391
Roche Laboratories 2, 3, 27, 28
Roerig & Company 15

S

Smith Kline & French Laboratories 22

U

U. S. Navy, Recruiting District, Omaha 19
Upjohn Company (The) 21

Physicians' Classified

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TWO FAMILY PHYSICIANS with large hospital practice wish third associate, who is Board Eligible, to join busy family practice. Located in Waterloo, Iowa, a northeast Iowa community of 75,000. All records dictated on the Problem Orientated Medical Records System. Contact: Drs. Ronald D. Flory and Ronald R. Roth, 611 Black's Bldg., Waterloo, Iowa 50703.

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A DOCTOR'S OFFICE IS FOR SALE in Stromsburg, Nebraska. Built in 1960. No doctor in town at the present time. Population 1,200. If interested, contact Maurice Newcomer of Stromsburg.

OPEN-ENDED OPPORTUNITY for a General/Family Practitioner, with or without surgical involvement. Full-time physician is needed, though part-time or "Locum tenens" may be considered. The community is rural, with a population of approximately 3,000, and a service area of 8-10,000, located 120 miles Southwest of Minneapolis. It has a diversified economic base, underpinned by some of the country's most productive agricultural land. It has a broad range of religious, service and social organizations. The community currently has three general practitioners, one of whom is semi-retired, averaging 60 years of age. It has two clinics, a 34-bed hospital, a 60-bed nursing home and two pharmacies. A surgeon and pathologists from Mankato and a radiologist from Albert Lea make regular trips to the community and hospital. Medical specialists are available at Mankato (35 miles) and Albert Lea (25 miles). For additional information, contact D. H. Gilbert, Wells Municipal Hospital, 400 - 4th Avenue, S.W., Wells, Minnesota 56097. (507) 553-3111 or 553-5904.

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ontraindications: Patients with known
ypersensitivity to the drug.
Varnings: Caution patients about pos-
ible combined effects with alcohol and
ther CNS depressants. As with all CNS-
cting drugs, caution patients against
azardous occupations requiring com-
lete mental alertness (*e.g.*, operating
nachinery, driving). Though physical and
sychological dependence have rarely
een reported on recommended doses,
se caution in administering to addiction-
rone individuals or those who might in-
rease dosage; withdrawal symptoms
including convulsions), following discon-
inuation of the drug and similar to those
een with barbiturates, have been reported.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.;* severe states, 20 or 25 mg *t.i.d.* or *q.i.d. Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

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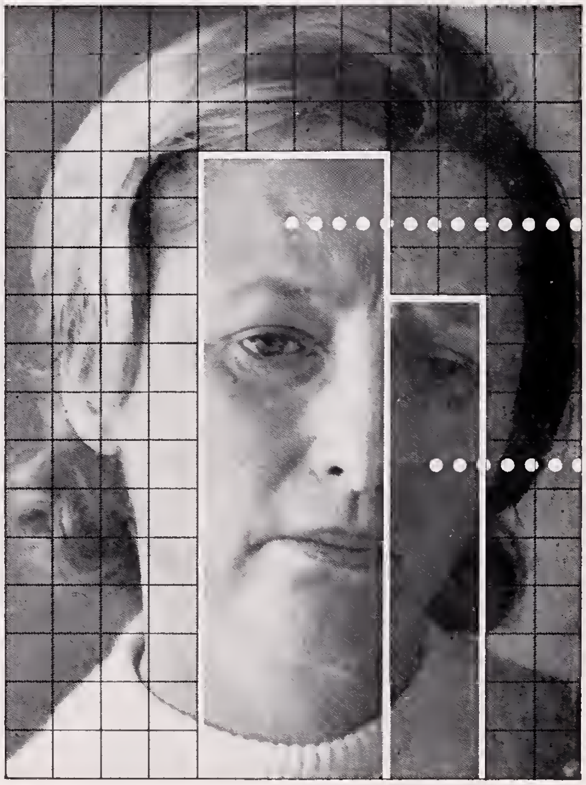
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anxiety states
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Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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The Nebraska Medical Journal

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NOVEMBER 1976 VOL. 61, NO. 11

EDITORIALS —

No Two Cases Are Alike 405
The New Doctors 405
I Told You So 405
Who Should Write The Article? 405
What Is So Rare As A Day In November? 406

ORIGINAL ARTICLES —

Giant Cavernous Hemangioma of the Liver: Case Report and Review of the Literature 407
Steven L. Wald, M.D.
Burdette J. Moor, M.D.
F. William Karrer, M.D.
Jack K. Lewis, M.D.

Post-Transfusion Purpura 413
Steven Krueger
Richard B. Davis

An Unusual Case of Idiopathic Retroperitoneal Fibrosis 415
Charles Sweet, M.D.
Joseph A. Sisson, M.D.
Shahrokh Badakhsh, M.D.

New Concepts in Diagnosis and Treatment of Tuberculosis, Part I 419
Russell A. Novak, M.D.
Louis W. Burgher, M.D.

The HLA System in Paternity Exclusion: Report of a Case in Nebraska 421
Arden E. Larsen, Ph.D., MT(ASCP)
Arthur L. Larsen, M.D.

Asymptomatic Obstructive Airway Defect — An Analysis of Causal Factors. A Study Involving 425 Nebraskans, Part II 423
Irving Kass, M.D., F.A.C.P.
Kashinath D. Patil, Ph.D.
Herbert Rubin, B.S., C.C.T.
Mark D. Kass, B.A.

Ureteral Colic and Aortic Aneurysm 427
William H. Northwall, M.D.

DOWN MEMORY LANE 430

FEATURES —

President's Page 431
The Auxiliary 432
The Letter Box 433

BETWEEN CASES 434

NEBRASKA —

Our Medical Schools 434
Welcome New Members 435
State Organizations 14A

THE OTHER STATES —

WashingtoNotes 435
Coming Meetings 437
National Organizations 11A

AROUND THE WORLD —

Books 438
Medicinews 438

Address all correspondence relating to subscriptions, advertising or address changes to Mr. Ken Neff, Business Manager, 1902 First National Bank Building, Lincoln, Nebraska 68508 Phone: [402] 432-7585.

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Narrowing down pneumonias

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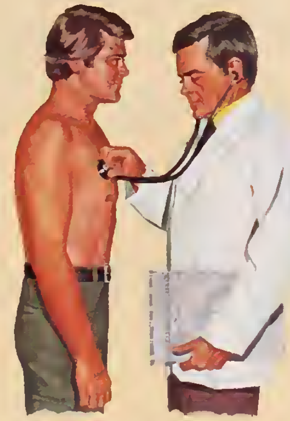
Bacterial or nonbacterial?

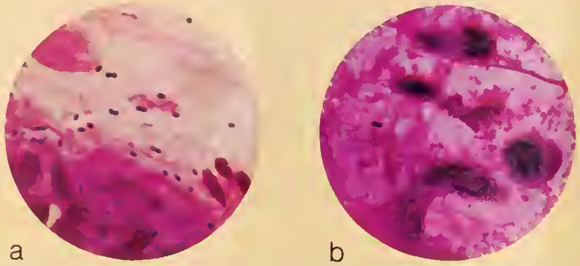


In the early stages of mild to moderate pneumonia, it is often difficult to reach an accurate bacteriologic diagnosis. A tentative differentiation may be made on history-taking, physical examination, CBC with differential analysis, and microscopic study of the sputum smear. Specimens should be obtained for culture and sensitivity testing, but when a bacterial pneumonia is diagnosed, therapy is often instituted before the etiological agent is positively identified.

Bacterial pneumonias may have a sudden onset with a shaking chill, rapid development of fever, pleuritic pain, and cough productive of rust-colored sputum. The Gram-stained sputum smear generally shows polymorphonuclear neutrophils as well as a predominance of the causative organisms. These are likely to be *Streptococcus pneumoniae,* still by far the most frequently encountered agent in bacterial pneumonia.[1] The CBC reveals marked leukocytosis with a shift to the left.

In *nonbacterial pneumonias* — mycoplasmal or viral — classical symptoms tend to develop more slowly, with myalgia, lassitude, and headache predominating. Sputum production is usually scanty, and the sputum smear is relatively uninformative, showing gram-positive cocci and other organisms which are part of the normal pharyngeal flora. The leukocyte count is normal or slightly elevated.

Direct Gram-stained sputum smears. (a) Pneumococcal pneumonia — note abundant polymorphonuclear leukocytes, as well as gram-positive diplococci. (b) Nonspecific — consistent with viral or mycoplasmal pneumonia. Note large mononuclear cell, as well as a few polymorphs and mixed bacterial flora (pharyngeal contaminants).

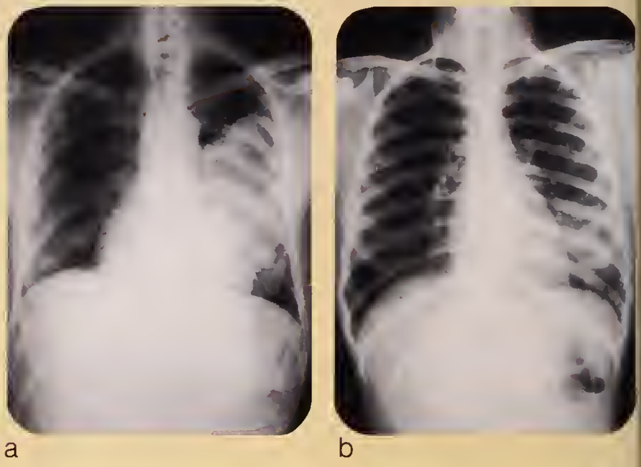


Mycoplasmal or viral?

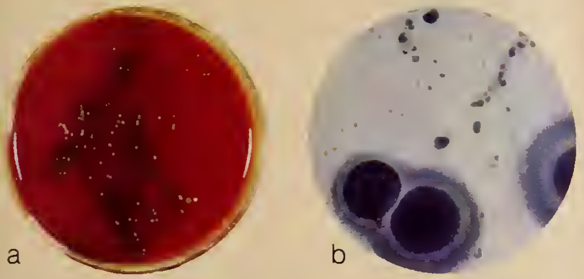
Differentiation between mycoplasmal and viral pneumonias may be impossible in the acute stage.[2]

Serologic testing and culture methods for *Mycoplasma pneumoniae* are complex and time-consuming, taking as long as two weeks after obtaining samples. The sensitivity and specificity of the test for cold agglutinins have been questioned. The complement-fixing antibody test may reflect previous infection. Furthermore, facilities for culturing *M. pneumoniae* are not widely available.[3]

If treatment is to be initiated, therefore, it may be necessary to start on the basis of a *presumptive* diagnosis of mycoplasmal pneumonia.[1-3] In reaching such a diagnosis, the physician relies on clinical judgment, considering such factors as the age of the patient and the history of exposure. For example, *Mycoplasma pneumoniae* is considered the most common cause of pneumonia among ambulatory patients aged 20 to 35.[1]



Chest x-rays of patients with (a) pneumococcal pneumonia — classically heavy, extensive infiltration of left lung; (b) mycoplasmal pneumonia — mild infiltrate confined to left lower lobe. Roentgenography usually does not help in differential diagnosis, since both types of pneumonias may present with a wide spectrum of x-ray as well as clinical findings.



(a) Distinct mucoid colonies of type 3 pneumococci *(Streptococcus pneumoniae)* on sheep blood agar showing greenish discoloration (alpha-hemolysis) of medium. (b) Typical "fried-egg" colonies of *Mycoplasma pneumoniae* consisting of dense central core with lighter periphery. Cultural and serologic methods for detecting *M. pneumoniae* are complex, time-consuming, and not widely available.

Expectant therapy

In the patient with a presumptive diagnosis of mycoplasmal pneumonia or bacterial pneumonia, it may be desirable to initiate antibiotic therapy before culture and sensitivity results are available.

A course of erythromycin or tetracycline is considered effective in the treatment of mycoplasmal pneumonia to help speed the clearing of infiltrate and shorten the duration of symptoms.[1,3] In pneumococcal pneumonia, erythromycin is an effective alternative to penicillin, the drug of choice. A recent report, based on data from 200 hospitals of 100 beds or more, found 98% of *S. pneumoniae* sensitive *in vitro* to erythromycin.[4]

Among these therapeutic agents, only erythromycin provides effective coverage of both *Mycoplasma pneumoniae* and *S. pneumoniae*. The penicillins are not effective against *Mycoplasma*, and *S. pneumoniae* has shown a relatively high incidence of resistance to tetracycline.

When erythromycin is selected for therapy, E-Mycin (erythromycin enteric-coated tablets, Upjohn) is a good choice. E-Mycin is administered and absorbed as active erythromycin base, and may be taken q.i.d., q 6h, or b.i.d., immediately after meals or between meals. Thus, patients can use mealtimes to help them remember their medication. The enteric coating on E-Mycin tablets helps ensure efficient absorption in the intestinal tract, and bioavailability studies show that E-Mycin can be expected to produce predictable, acceptable blood levels. The low cost of E-Mycin helps assure economical therapy.

E-Mycin rarely causes serious side effects and is not associated with liver toxicity.* The most frequent side effects are upper gastrointestinal, such as abdominal cramping and discomfort, and are dose-related. Nausea, vomiting, and diarrhea occur infrequently with usual oral doses. Serious allergic reactions, including anaphylaxis, have rarely been reported.

*Use cautiously in patients with severe liver impairment

REFERENCES: 1. Chusid EL, Dalrymple W, Holloway WJ, et al: Managing the infectious pneumonias. *Patient Care* 9:122-167, 1975. 2. The occasional might of mycoplasma. *Emergency Med* 7:82, 85, 1975. 3. Stevens DA: Viral and Mycoplasma pneumonias. *Postgrad Med* 55:81-86, 1974. 4. Data source: PMR Bacteriologic Report, Winter Series 1975-1976. Data are a compilation of laboratory reports submitted during December 1975 and January and February 1976 by 200 acute care hospitals of 100 beds or more.

Summary

Because pneumonias may be difficult to differentiate at the outset, treatment is often initiated before a causal diagnosis is made. However, readily available diagnostic criteria occasionally allow early differentiation between bacterial and nonbacterial pneumonias. When the diagnosis appears to be nonbacterial pneumonia, further differentiation between mycoplasmal pneumonia and viral pneumonia is more complex and time-consuming. Therefore, therapy is often initiated on the basis of a *presumptive* diagnosis of mycoplasmal pneumonia.

Erythromycin is an effective antibiotic against *Mycoplasma pneumoniae, Streptococcus pneumoniae,*† and *Streptococcus pyogenes.*† E-Mycin (erythromycin enteric-coated tablets, Upjohn) is administered and well absorbed as the active base, may be taken immediately after meals or between meals, and is essentially nontoxic.

†Although penicillin remains the drug of choice against these organisms, erythromycin is an effective alternative

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wide-ranging usefulness in pneumonia*

*Mild to moderately severe, due to susceptible organisms

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Alpha-hemolytic streptococci (viridans group): Short-term prophylaxis against bacterial endocarditis prior to dental or other operative procedures in patients with a history of rheumatic fever or congenital heart disease who are hypersensitive to penicillin. (Erythromycin is not suitable prior to genitourinary surgery where the organisms likely to lead to bacteremia are gram-negative bacilli or the enterococcus group of streptococci.)
Staphylococcus aureus: Acute infections of skin and soft tissue of mild to moderate severity. Resistance may develop during treatment.
Diplococcus pneumoniae: Upper respiratory tract infections (eg, otitis media, pharyngitis) and lower respiratory tract infections (eg, pneumonia) of mild to moderate degree.
Mycoplasma pneumoniae (Eaton agent, PPLO): In the treatment of primary atypical pneumonia, when due to this organism.
Treponema pallidum: Infections due to this organism.
Corynebacterium diphtheriae and *Corynebacterium minutissimum:* As an adjunct to antitoxin, to prevent establishment of carriers, and to eradicate the organism in carriers. In the treatment of erythrasma.
Entamoeba histolytica: In the treatment of intestinal amebiasis only. Extraenteric amebiasis requires treatment with other agents.
Listeria monocytogenes: Infections due to this organism.

Contraindication: Contraindicated in patients with known hypersensitivity to erythromycin.

Warning: Safety for use in pregnancy has not been established.
Precautions: Erythromycin is principally excreted by the liver. Caution should be exercised in administering the antibiotic to patients with impaired hepatic function. Surgical procedures should be performed when indicated.
Adverse reactions: The most frequent side effects of erythromycin preparations are gastrointestinal, such as abdominal cramping and discomfort, and are dose-related. Nausea, vomiting, and diarrhea occur infrequently with usual oral doses. During prolonged or repeated therapy, there is a possibility of overgrowth of nonsusceptible bacteria or fungi. If such infections occur, the drug should be discontinued and appropriate therapy instituted. Mild allergic reactions such as urticaria and other skin rashes have occurred. Serious allergic reactions, including anaphylaxis, have been reported.
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*Mild to moderately severe due to susceptible organisms.

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R. Brian Holmes, M.D., Pres.
One MONY Plaza, 15th Floor,
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RECENT CHANGES
federal register
Providing Drug Information to Physicians
Informational Bulletin #433-76
National Health Insurance
special report
Malpractice insurance:
drug bulletin
Health care doesn't need more red tape
Drug firms challenge 'MAC' rules
Drug Substitution
The Common Denominator of Health Progress
RESEARCH
Mailgram

THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent, generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than $1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.

P·M·A

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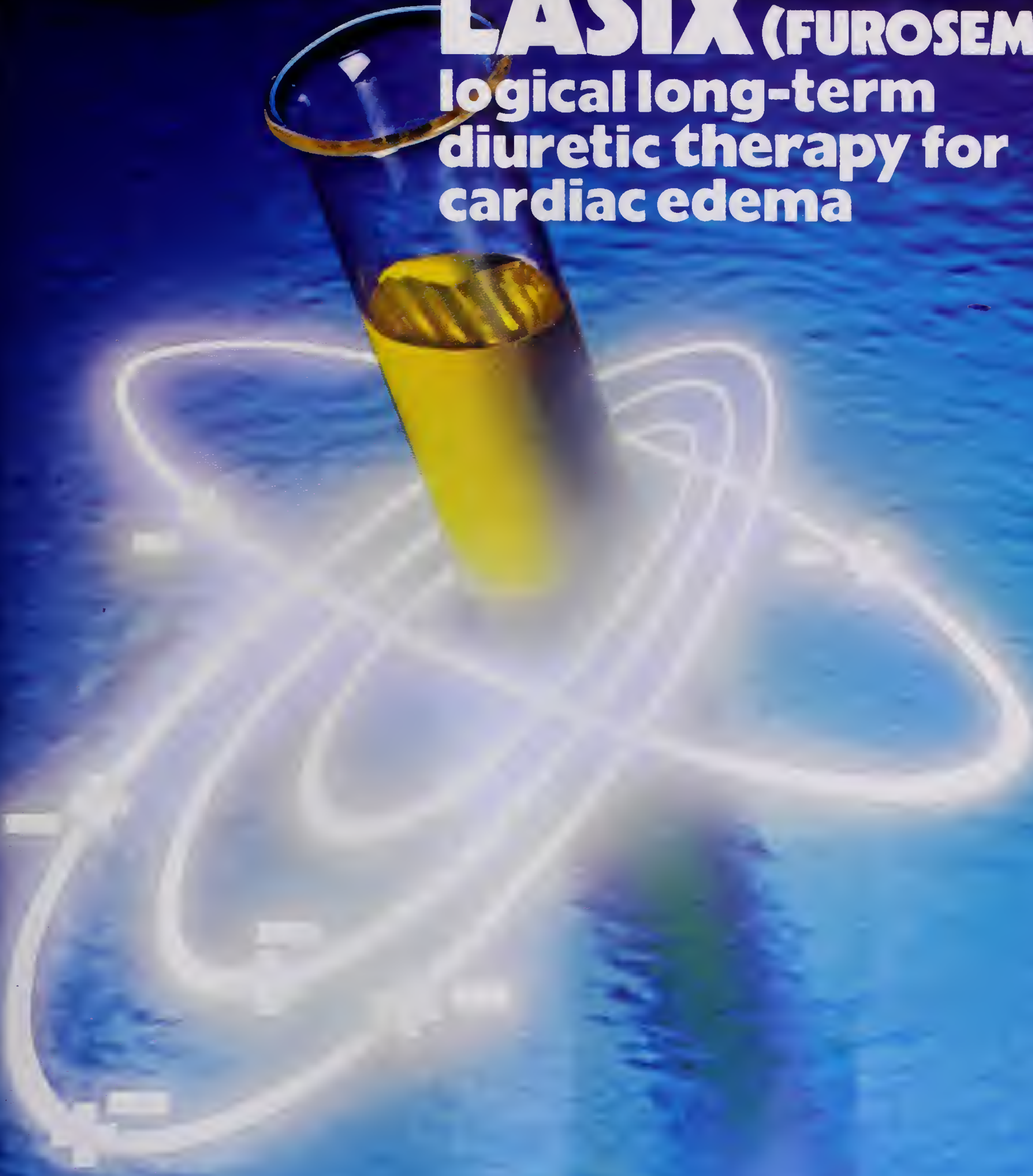
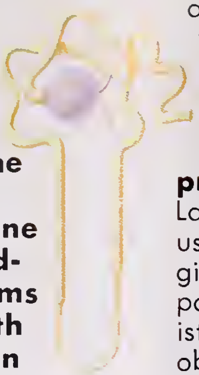
When you control urine volume in your patients...

it's what's
not in the urine...
that makes
LASIX® (FUROSEMIDE)
logical long-term
diuretic therapy for
cardiac edema



(Please see last page of this advertisement for prescribing information.)



The Lasix® site of action is a distinctive advantage—for it results in fewer electrolytes in each liter of urine than with other commonly used diuretics.[1,2] That is why, if you control urine volume through individual dosage adjustment, you may face fewer problems with electrolyte disturbances.[3] As with any diuretic, electrolyte depletion can occur during therapy with furosemide. Careful clinical and laboratory observations are advisable.

The primary site of Lasix® action—at the loop of Henle—distinguishes Lasix from other commonly used diuretics. The action at this site enables Lasix to produce a dilute urine,[4] which may be the basis for its relative freedom from electrolyte disturbances (hypokalemia).[3] When the edematous patient has been stabilized, excessive diuresis can usually be avoided by simple dosage adjustment. And, through regulation of urine volume by this dosage adjustment, you can control electrolyte excretion. Careful medical supervision is required.

Wide dose-related effectiveness for precise control of diuretic response. The Lasix® effect is dose-related. A prompt diuresis usually ensues with a single dose of 20 to 80 mg, given preferably in the morning. Depending on the patient's response, a second dose may be administered 6 to 8 hours later. Clinical and laboratory observations are advisable when doses exceeding 80 mg/day are given for prolonged periods. When maintenance of the edema-free state is desired, dosage may be adjusted to as low as 20 mg.

(Please see the dosage and administration section on the last page of this advertisement.)

Highly effective/short acting. The effectiveness of Lasix® has been clearly established in hundreds of thousands of patients in a decade of clinical experience. Consequently, Lasix is the most selected diuretic agent today in the treatment of edemas associated with congestive heart failure.

because fewer electrolytes
get into each liter of
urine than with other commonly
used diuretics...

LASIX® (FUROSEMIDE)

the diuretic for both initial & maintenance therapy in cardiac edema

The onset of diuresis usually occurs within an hour and is usually complete within 6 to 8 hours; thus, patient inconvenience is minimized.

Useful in patients with renal impairment and severely depressed renal function. Unlike other commonly used diuretics, Lasix® can be useful in patients with renal impairment and severely depressed renal function. Even in the presence of renal insufficiency with depressed glomerular filtration, acidosis, alkalosis or hypoalbuminemia, Lasix has been found effective and well tolerated.[5] If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued.

(See next page for prescribing information.)

References: 1. Peltola, P.: Furosemide (Lasix®) as a diuretic, *Acta Medica Scandinavica, 177*:6, 1965. **2.** Mudge, G.H., in Goodman, L.S. and Gilman, A. (eds.), The Pharmacological Basis of Therapeutics, 4th ed., 1970, p. 852. **3.** Manner, R.J., Brechbill, D.O., and DeWitt, Karen: Prevalence of hypokalemia in diuretic therapy, *Clin. Med. 79*:19, November 1972. **4.** Schrier, R.W., *et al.*: Effect of furosemide on free water excretion in edematous patients with hyponatremia, *Kidney Int.* 3:30, 1973. **5.** Muth, R.G.: Diuretic response to furosemide in the presence of renal insufficiency, *J.A.M.A. 195*:1066, March 1966.

the basic unit

LASIX® 40 mg tablets

(FUROSEMIDE)

unsurpassed effectiveness for prompt reduction of edema

the adjuster unit

LASIX® 20 mg tablets

(FUROSEMIDE)

convenient dosage adjustment for maintenance therapy

LASIX® 40 mg and 20 mg tablets.
(FUROSEMIDE)

logical long-term diuretic therapy for cardiac edema

A brief summary of the Prescribing Information for
Lasix® (furosemide) Tablets 20 mg and 40 mg

WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO_2 and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperuricemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering curare or its derivatives to patients undergoing therapy with Lasix (furosemide), and it is advisable to discontinue Lasix (furosemide) for one week prior to any elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticaria and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, or diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (with purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported; however, relationship to the drug has not been established with certainty: sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinary frequency.

Dosage and Administration

ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as a single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individually determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day in those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged periods, careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent as soon as Lasix (furosemide) is added to the regimen to prevent excessive drop in blood pressure. As the blood pressure falls under the potentiating effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infants and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white, round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information

Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD_{50} of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD_{50} ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD_{50} of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often became dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of the drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in rats and dogs. In a one-year study in rats, renal tubular degeneration occurred, with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed calcification and scarring of the renal parenchyma at all doses above 10 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 17 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused maternal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate fetal lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of the renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.

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Employment, Retirement, and Morale Among Older Women — P. Jaslow (School of Social Administration, Temple Univ, Philadelphia 19122) J Gerontol 31:212-218 (March) 1976.

This study constitutes an effort to apply to women the role-theoretical orientation to work and retirement in old age which has often been applied to men. Cross-sectional data from a national probability sample of 2,398 women age 65 and over are used to test the hypothesis that older working women have better morale than those who do not work. With the exception of women with annual incomes in excess of $5,000, the findings show small but statistically significant differences both between older working women (who had the best morale) and retirees, and between retirees and women classified as never having worked (who showed the lowest morale). Statistically significant differences remained between these groups after simultaneously isolating the effects of age, income, and health, lending tentative support to the hypothesis and suggesting that work may indeed have a salutary though limited psychologic influence among women in the post-65 years.

Double-Blind Study of Propranolol for Migraine Prophylaxis — S. Diamond (Diamond Headache Clinic, Ltd, 5252 N Western Ave, Chicago 60625) and J. L. Medina Headache 16:24-27 (March) 1976.

Eighty-three migraine patients were admitted to a double-blind, single crossover, propranolol vs placebo study. Sixty-two patients completed the trial. The daily dosage was either 80 or 160 mg propranolol, or an equivalent number of placebo capsules, for four to eight weeks for the first medication and eight weeks for the second one. At the end of the trial, 32 patients preferred propranolol and 18 placebo. Those who preferred propranolol had greater reduction in severity and frequency of headaches and less consumption of analgesics and ergotamine than patients who preferred placebo. Side effects were benign. Propranolol is safe and effective for the prophylaxis of migraine if patients are carefully selected.

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5 mg, 10 mg, 25 mg capsules

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

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Usage *in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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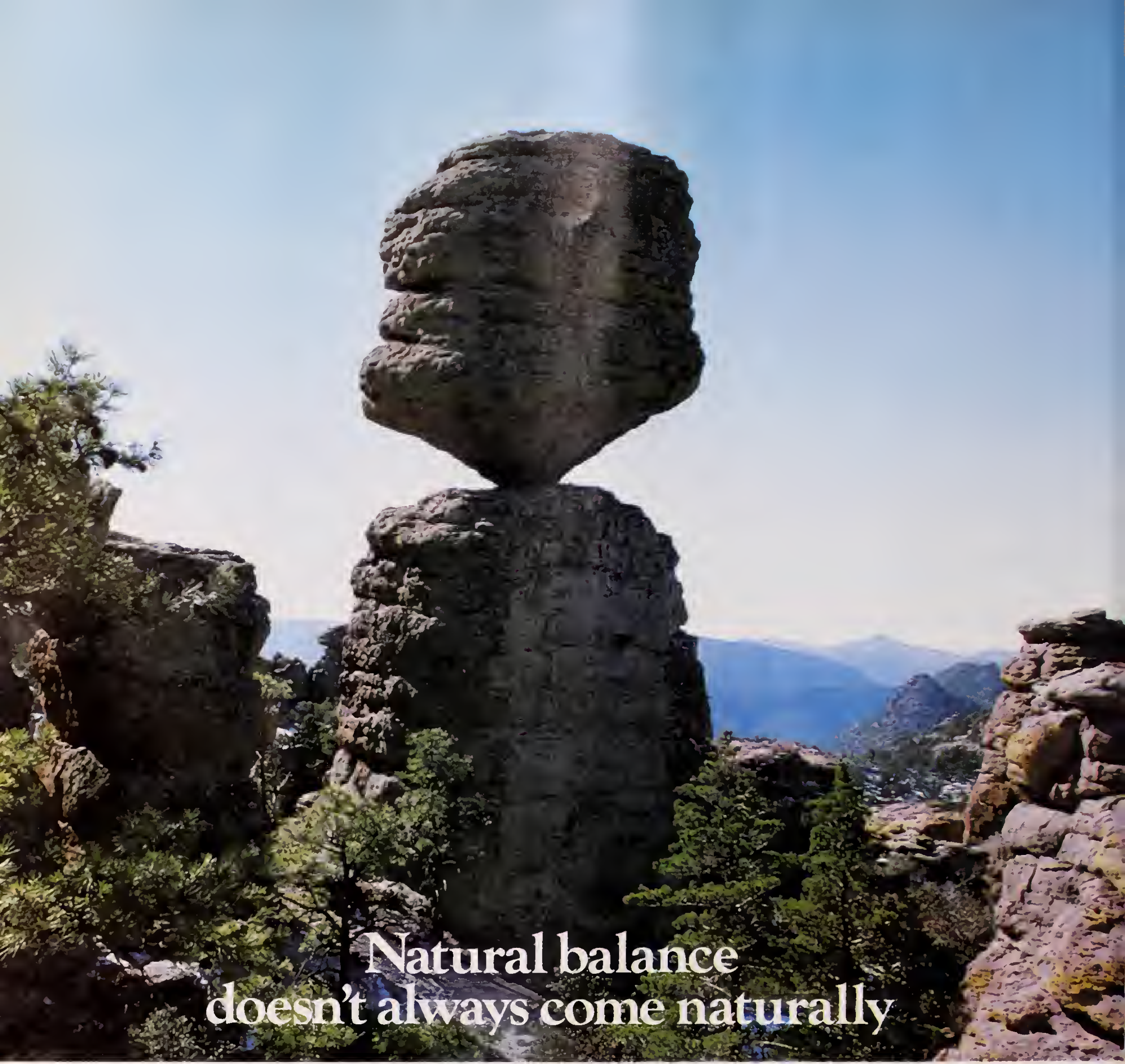

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Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

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Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children. Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy. See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

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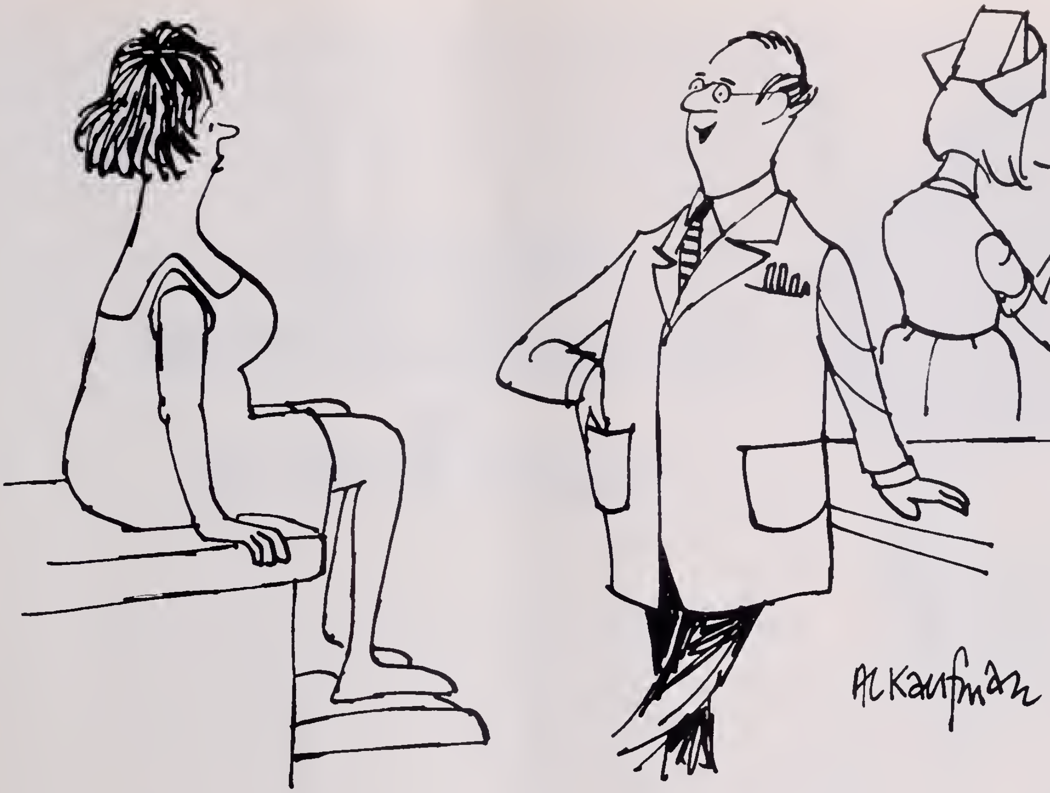

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The one the patient takes is never tested.

Surprising, perhaps, but it makes sense when you think about it.

Obviously, the actual dose of any prescription drug the patient takes cannot be tested because it would have to be broken down for analysis—after which it could never be used by a patient.

This means that you depend on the manufacturer for assurance that the dose the patient takes is identical to the ones which have been tested.

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THE NEBRASKA MEDICAL JOURNAL

NO TWO CASES ARE ALIKE

Yes they are. There is somebody walking around with exactly the same number of hairs on his head as on mine, otherwise I might have billions of head-hairs, and I don't. Otherwise a hundred thousand patients with appendicitis would be treated a hundred thousand different ways, but they usually have appendectomy. Otherwise a million people whose hearts fail would be given a million different drugs, but we don't have a million drugs. And otherwise we could never make up our minds.

Must I be driven into a corner and insist that all appendicitis is the same? Not at all. It is enough for me that they do not differ widely if at all, that appendicitis is appendicitis and a broken leg is a broken leg. Cancer of the breast, for all its variables and controversy, is cancer of the breast, and if you want to look up eczema you do not reach for a book on surgery.

F.C.

THE NEW DOCTORS

Angry young people have always been with us; we were young and angry once. But they have been angrier than I remember being, and since the generations of angry young doctors are only five years long, I have lived through a few of them. And irate young doctors have rebelled and have grown up, whereupon they joined the older practicing physicians and were replaced by a new group of angry young physicians, who like civilizations piled on top of one another, were themselves replaced by still another group of indignant young doctors.

From what I have read, these people lost their anger when they lost their youth. It is more than likely that they acquired wisdom with age; certainly, information came their way. Is to be young to be immature? I do not belittle them, I look at the record.

—F.C.

I TOLD YOU SO

I once read that there were four kinds of thinking. They were induction and rationalization and two others which I forget, since it was required reading.

But if thinking and talking are not quite the same, there is too often only one kind of talking, and it is I told you so. It takes many forms, as see I was right all the time, and I really told him, and that's what I said too.

Language has identified itself with the need for I-told-you-so constructions, with n'est-ce pas and nicht wahr, and we turn to the listener to agree. Sometimes we punctuate our mouthings with you see? or don't you see? or now do you see? or isn't that so? or you know? And some of us are pointers and finger jabbers.

Do we guess elections or ballgames wrong, we are ready with excuses: the weather was off or we were tired. But if our side won, why then, the weather was perfect, and anyway, you can't control the weather.

You have only to listen to what passes for conversation, the sort we call chitchat or small talk. Aside from foolishisms like it's cold today, dialogues usually consist of a series of alternating I told you so and I was right and that's what I've always said. If you are sick, I am even sicker. Try it, throw I don't feel well into the next conversational lull; the answer will come back, I don't either.

Why is there the awful need to impress one's conversational partner and to look on conversation as a game?

Idle conversation is idle and generally does not improve on silence. At its best, it is the product of two of us telling each other how good we are, and how right we are, and all about ourselves.

—F.C.

WHO SHOULD WRITE THE ARTICLE?

A medical author is like a president. He has an idea, he does something, and he has then to put it into words. But the office-holder is smart. He is like the fellow who has become famous as an actor or an athlete, but not as a writer, and who wants to publish a book. The celebrity and the president send for a specialist. The author gets a co-author or a ghost-writer, and the book's title page says *as told to*, or simply, *with*. The president gets a speech-writer.

Does not the physician want someone like the co-author and the speech-writer to set down in words what he (the doctor) thinks or what he has done? Is he not well advised to consult with the statistician who, in his ivory tower, can tell him if the experiment has been properly done?

We are specializing all over the place. Maybe the speech-writer should run for president. Maybe the medical author needs a medical writer.

—F.C.

WHAT IS SO RARE AS A DAY IN NOVEMBER?

A day in April, that's what, or February 29th. But it is a nice day, and somebody said it's 22, and I think she means Celsius.

An absolute scale is counted from absolute zero (-459.67 F). Kelvin is an absolute scale whose unit is the same as Celsius, but the ice point is 273.15. Rankine is absolute in which the unit is a Fahrenheit unit, and the ice point is 459.67. Centigrade means the interval between two established points is divided into 100 units; that's all. Celsius is like that, but its ice point is zero and the boiling point of water is 100. C has been used as an abbreviation of centrigrade, but it really means Celsius.

The ice point is 32 in Fahrenheit, and water boils at 212. In the Reaumur scale the ice point is zero and the boiling point of water is 80.

Well, they tell you Celsius now, but I'm a suppressed physicist and I'm at stickler for Kelvin, so it's a nice day, all right, but it's 293.15 degrees. Come to think of it, I like Reaumur too, and it's 17.6 degrees Reaumur.

Have a good day. It's 71.6° F. I hope I figured all of this right.

—F.C.

Giant Cavernous Hemangioma of the Liver: Case Report and Review of the Literature

Abstract

Giant hepatic hemangiomas are not a common finding. Signs and symptoms vary from essentially asymptomatic hepatomegaly to massive spontaneous rupture and shock. Numerous solitary case reports are found in the literature with a rather wide variation of incidence, lobar involvement, age, and other vital statistics. Accumulation of over 155 case reports and analysis of this data has shown that the majority of patients are in the fourth and sixth decades of life. Female preponderance, reportedly as high as 10:1 was found to be significantly lower. The anatomical right hepatic lobe was found to be the dominant site of pathology in the majority of cases. Review of the literature for the newborn is also evaluated.

STEVEN L. WALD, M.D.,
BURDETTE J. MOOR, M.D.
F. WILLIAM KARRER, M.D.
and
JACK K. LEWIS, M.D.

HEMANGIOMAS are the most frequent benign tumors of the liver.[1] The majority are small, solitary, and only incidentally discovered during celiotomy or autopsy. Some hemangiomas however may attain a size of 4 cm in diameter or greater. These "Giant" hemangiomas may then impinge or interfere with the normal function of neighboring organs. The most common complaints recorded are a self-detected upper abdominal mass,[2,3,4] pressure,[2] and epigastric fullness with nausea, vomiting, and anorexia.[5] All these symptoms seem dependent upon the size, location, and degree of encroachment by the mass.

Also reported are cases of spontaneous rupture of giant hemangiomas.[6] Massive intraperitoneal hemorrhage occurred and prognosis was poor. The first successful resection of a ruptured hemangioma was accomplished by Tinker[7] in 1935. Sewell and Weiss[6] in reviewing these cases found a mortality rate of 67%.

Because of the relative infrequency of large symptomatic hemangiomas, mostly world reviews and isolated case reports have appeared in the literature.[3] Schumacker,[4] in 1942, found 67 cases in the world literature, including only one of his own. In 1952, Wilson and Tyson[5] reported on 3 patients, all of whom were symptomatic. The Mayo Clinic[2] experience from 1907-1954 reported 35 hemangiomas of the liver. Eleven of their patients underwent surgical exploration because of clinical manifestations thought to be caused by the tumor. Adam et al[3] at Memorial Sloan-Kettering Cancer Center reported on 126 benign tumors of the liver from 1935-1965. Of the 106 hemangiomas, only 22 were classified as giant hemangiomas with 18 of these patients being symptomatic. Ecker and Doane[8] presented two further cases as well as a review of the literature.

Case Presentation

A 69 year old woman was first seen for generalized pruritis of seven months duration. This rather constant itching was associated with plaques of erythema which would last for several days. The most persistent areas of pruritis were on the upper arms and lumbosacral areas. Topical and internal antipruritic agents had been tried, all without much help. A skin biopsy performed two weeks prior to this admission showed rather extensive dermovasculitis. Special stains ruled out mast cell disease and urticaria pigmentosum. The patient denied any unusual emotional stresses as well as weight loss, anorexia, abdominal pain, jaundice, or fever. No self-detected masses were reported. Previous operations had included a cholecystectomy ten years ago and a hysterectomy. Major consideration was given to a systemic etiology for her pruritis.

Vital signs were normal with a blood pressure of 140/76. HEENT were normal and no lymphadenopathy was found. Lungs were clear and the heart sounds were normal. The abdomen was protuberant and the liver edge was palpable 4 cm below the right costal margin. The liver edge was smooth and nontender. No other abdominal viscera were plapated and the bowel sounds were normal. Skin examination showed patchy, erythematous eruptions particularly noted on the mid and lower back. Neurological functions were intact.

Preoperative laboratory evaluation is shown in Table 1. In addition, ESR was 5 mm/hr; VDRL, rheumatoid factor, ANA, and cold agglutnins were negative. A bone marrow examination was normal.

A plain film of the chest showed the right hemidiaphragm 6 cm. above the level of the left. See Figure I. A liver scan showed a large area of decreased activity involving the posterolateral aspect of the right lobe and extending over the dome. See Figure IIA. Barium enema and IVP were normal. An UGI series showed extrinsic pressure on the anterior, lesser curvature of the stomach, felt to represent liver encroachment.

Because of the suspicion of a neoplastic process, a percutaneous liver biopsy was attempted. Tissue could not be obtained and the procedure was terminated. The patient complained of abdominal pain and was noted to be hypotensive with a blood pressure of 70/40. As soon as blood was available, two units were given with a temporary improvement of vital signs. With increasing abdominal regidity and a hemoglobin

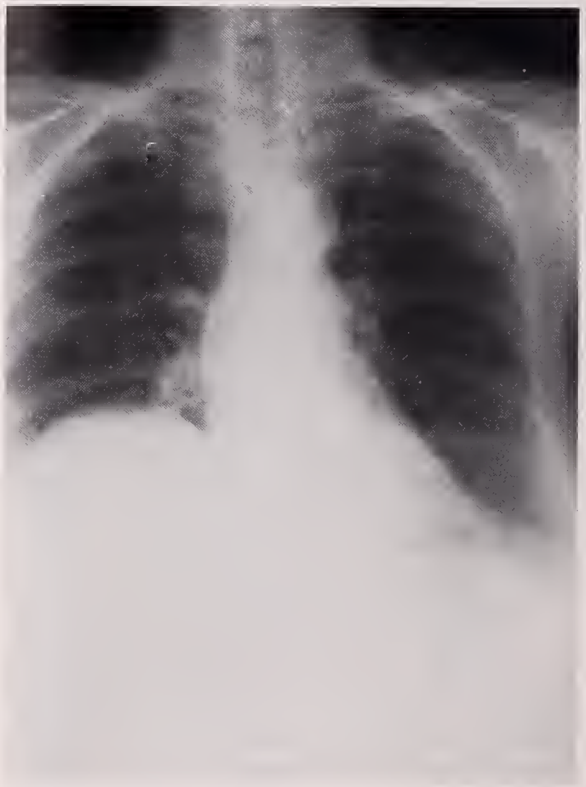

Figure I: Plain A-P chest roentgram showing right hemidiaphragm elevated 6 cm above the left hemidiaphragm.

TABLE I
LABORATORY VALUES

	Pre-Operative	Post-Op Day 1	Post-Op Day 4	Post-Op Day 12	Post-Op Day 18		Normal Lab Values
	1/4/75	1/10/75	1/13/75	1/21/75	1/27/75	2/3/75	
WBC	5.9	7.0		8.7	8.5	6.5	4-11,000
Hgb.	13.1	12.0	11.1	11.7	11.7	11.3	12-16 gm/dl
Platelets	normal	154,000	87,000	normal	460,000	normal	200-400,000
Protine PT. Control	12/12	16/13		17/13	13/12		11-14 sec.
PTT PT Control		30/31					25-35 sec.
Protein Total	6.3	5.0	4.5	4.9	5.8	5.4	6.0-8.2 g/dl
Albumin	3.9	3.5	2.6	2.6	2.8	2.5	3.0-4.2 g/dl
Cholesterol	205	125	105	105	130	135	150-270 mg/dl
Bilirubin Total	0.8	0.9	0.8	1.4	0.6	0.3	0.2-1.2 mg/dl
Alk. Phos.	50	45	55	80	141	95	15-120 I.U.
SGOT	16	110	22	20	15	20	0-40 I.U.
SGPT					8		0-25 I.U.
SGPT	38						5-30 I.U.
Glucose	85	230	127	108	112	166	70-120 mg/dl
Ammonia		75	90				20-50 mcg/dl

determination of 8.8 gm/dl, the decision was made to take the patient to the operating room.

Upon entering the peritoneal cavity an estimated 2500 ml of fresh and clotted blood were evacuated. A large hemangioma, involving the entire right lobe of the liver, was visualized. Because of the friability of this tumor and the extent of the hemangioma it was decided to undertake a right hepatic lobectomy. The reader is referred to several excellent articles regarding technique for hepatic lobe resection.[9, 10, 11] Bleeding from the surface of the hemangioma was persistent during the procedure and the patient received 28 units of whole blood, maintaining a blood pressure above 70 mm Hg systolic and an adequate urine output. A T-tube was initially placed in the common duct and two penrose drains were inserted into the right subphrenic space.

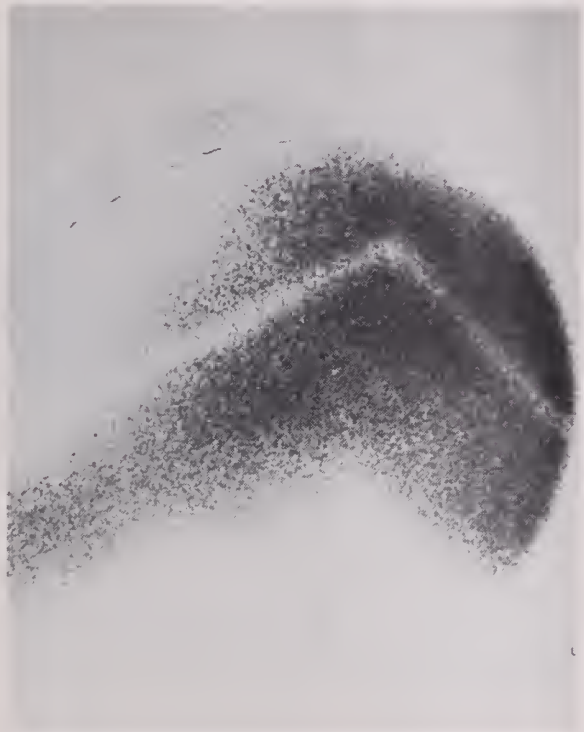

Figure IIA: Pre-operative liver scan demonstrating a large filling defect in the posterolateral aspect of the right hepatic lobe. Diaphragmatic margin of liver indicated by superimposed dashes.

The right hepatic lobe measured 18 x 11 cm and weighed 1,560 grams. The entire lobe had been replaced with the tumor. See Figure III. Microscopic diagnosis was cavernous hemangioma. See Figure IV.

Post-operative course was complicated by subphrenic hematoma, abscess and a right pleural effusion. On the 20th post op day the patient was taken to the operating room and a right subphrenic hematoma was evacuated. Laboratory evaluation of liver functions at several intervals are shown in Table 1. A repeat liver scan done 18 days after the hepatic lobectomy showed a very prominent but otherwise normal left lobe. An oval, 6 x

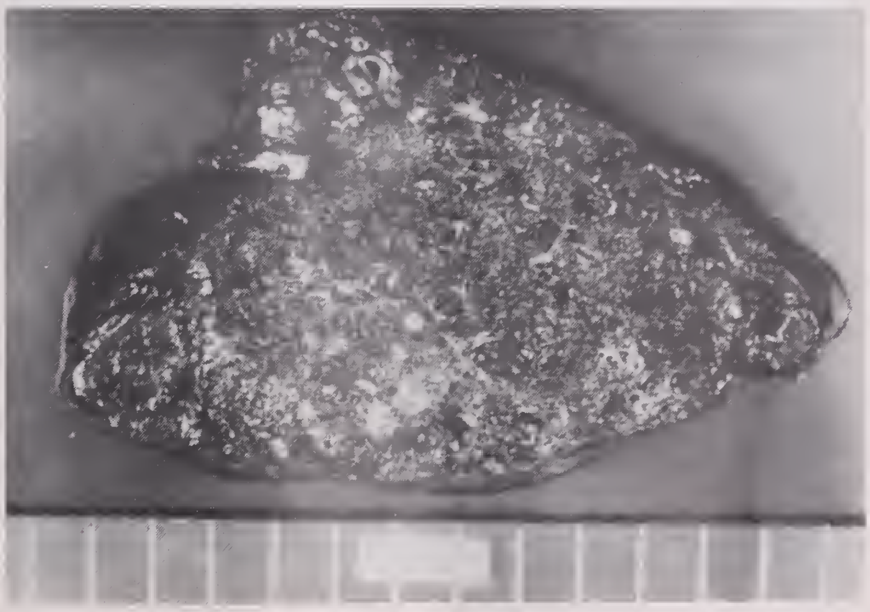

Figure III: Operative specimen. Entire right lobe replaced by blood filled spaces. Dimensions 18 x 11 cm. Weight 1,560 grams.

4 cm are of regenerated liver was visualized. See Figure IIB.

Vascular tumors of the liver are relatively uncommon compared with the frequency of metastatic cancer to the liver.[1] Some statistical information is available as to the occurrence of hepatic cavernous hemangiomas. Adami[12] reported in 1910 20 cases of hepatic hemangiomas from 1,400 autopsies (1.4%). In a review of 2,400 consecutive autopsies from 1949-1957 at the Houston Veterans Administration Hospital, Ochsner and Halpert[13] reported 55 hemangiomas (2.3%), most of them between 1 and 3 cm. Other necropsy reports show ranges from 0.6% to 7%.[14, 15]

In reviewing and analyzing over 155 cases of giant cavernous hemangiomas of the liver from as early as 1868 to the present, we have found the following data. Although giant hemangiomas are found in all age groups, they are more common in the fourth and sixth decades of life. The average age of patients with symptomatic hemangiomas is 49.5 years, excluding neonates and infants. Most previous studies show a female preponderance with ratios varying from 4.5:1 to as high as 10:1[2] when only symptomatic

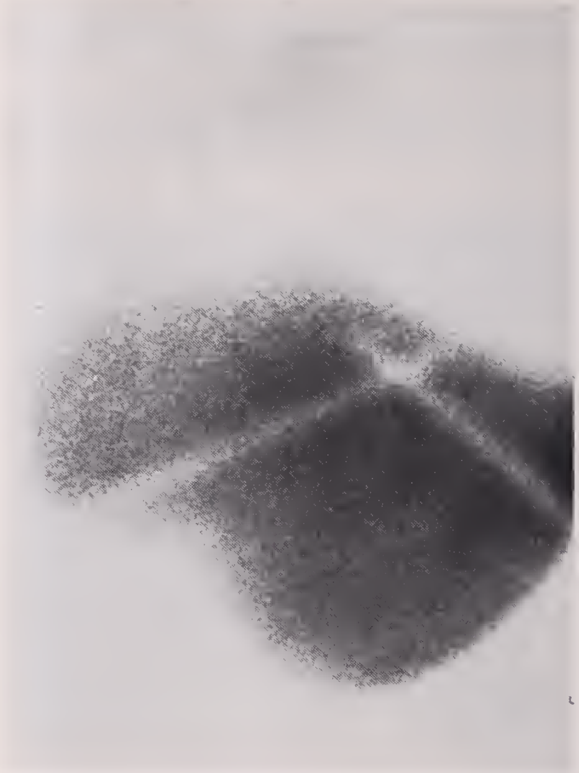

Figure IIB: Liver scan 18 days post operation demonstrating regenerated liver on the right. Projected outline of right liver lobe and diaphragmatic border indicated by dashes.

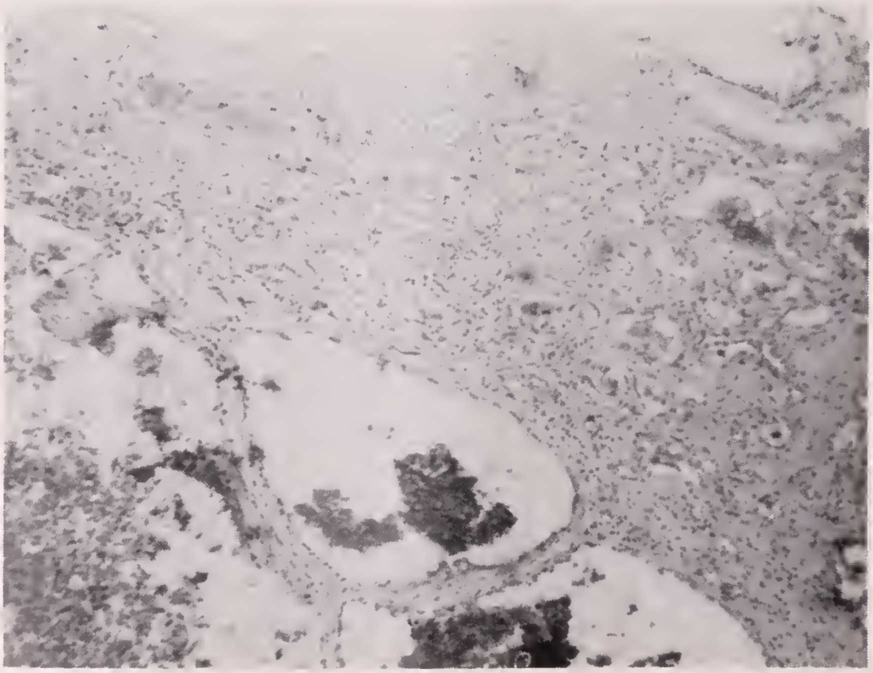

Figure IV: Characteristic microscopic findings of cavernous hemangioma. Numerous small and large channels and spaces filled with blood and divided by a fibrous connective tissue septa.

hemangiomas are considered. The ratio for all cases studied in the literature was 2.1:1 (107:51), while female preponderance for symptomatic hemangiomas dropped to 1.8:1 (77:43). Hemangiomas occur in both lobes of the liver with dominance of one lobe over another variably reported.[3,4,16] Lobe distribution for all documented cases with hemangiomas greater than 4 cm in diameter shows 60 hemangiomas in the right lobe, 44 in the left lobe, and 33 demonstrating diffuse involvement.

The occurrence of giant hepatic hemangiomas in newborns and infants is also uncommon when compared with primary hepatocellular tumors. Clatworthy et al[17] found only 4 hemangiomas of the liver in a series of 41 primary liver tumors (9.8%). While the incidence of this tumor in newborn infants is rather low, the mortality is quite high. In reviewing 37 case presentations in the literature, from 1903-1974, we found only 16 successful hepatic resections. The tendency for large cavernous hemangiomas to rupture during the newborn period is well recognized.[6,18] Death has also been attributed to congestive heart failure secondary to arteriovenous shunting[19,20] and thrombocytopenia with massive hemorrhage.[21] Of the case presentations we have reviewed where a diagnosis was confirmed, there were 13 females and 20 males. Thirteen tumors were found in the right lobe, 9 in the left lobe and 8 in both anatomical lobes. In almost all cases an abdominal mass was noted. The youngest patient to undergo a successful resection was 20 hours old.[22]

Grossly the tumors are irregular, lobulated and usually solitary. On sectioning, the spongy appearance and dark red color are characteristic.[23] Microscopically, these tumors are usually of the cavernous type with dilated blood filled spaces lined by flattened endothelial cells and divided by a fibrous connective tissue septa.[24]

As a rule, there are no symptoms until the hemangioma attains a size or mass large enough to interfere with the surrounding structures. The most common symptomatology has been previously mentioned.

On physical examination, an abdominal mass intimately associated with the liver is the most common finding.[2,3] There are no consistent physical characteristics to distinguish this mass from other hepatic tumors. A hum or bruit should be sought.

Plain x-ray films of the abdomen are usually not diagnostic since only rarely do hepatic hemangiomas calcify. Plachta[25] reported on 13 cases of calcified cavernous hemangiomas describing a characteristic pattern of spicules radiating from a central point toward the periphery of the lesion. Radioisotopic scans of the liver almost invariably show a filling-type defect in the hepatic parenchyma. It is virtually impossible to distinguish this defect from those of solitary primary or metastatic disease of the liver. Selective celiac or hepatic arteriography has recently been proposed as a definitive diagnostic tool and typically shows a vascular blush.[26]

The treatment of choice is generally agreed by most authors[2,3,4,27] to be excision of the tumor with a rim of normal hepatic tissue.[25] Usually this type of procedure is feasible and when done electively carries an acceptable mortality.[3] Certain hemangiomas of the liver however, are not resectable either because of size, diffuse involvement of both lobes, or other surgical risk factors. Successful irradiation of these tumors was first reported by Ray[28] in 1939 and other reports have followed with generally good results.[29,30] Corticosteroid therapy has also been advocated.[31]

Patients who survive resection of hepatic hemangiomas have a favorable prognosis due to the benign nature of this tumor. Adam[3] reports no mortality for 8 patients undergoing elective resection. Lobectomy performed after spontaneous or iatrogenic rupture, however, has a very poor prognosis.

Giant hemangiomas of the liver, although a relatively rare occurrence, must be part of the physician's differential diagnosis when presented with a patient who has epigastric symptoms, hepatomegaly, normal laboratory data, and a filling defect on liver scan. A review of the literature has been presented as well as a case history. Although spontaneous rupture is a very rare occurrence, the vascular nature of this lesion makes bleeding difficult to control. Treatment consists of surgical excision unless there is diffuse involvement of both lobes. Radiation therapy and corticosteroids have been used in these cases with varying success. Percutaneous liver biopsy is helpful in evaluating patients with liver disease, however, the physician must be prepared to undertake a major hepatic resection if a hemangioma is encountered.

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Post-Transfusion Purpura*

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POST-TRANSFUSION purpura (PTP) is a rare but potentially fatal complication of blood transfusion.[1,2] It typically presents with acute severe thrombocytopenia and diffuse purpura, seven to ten days after whole blood transfusion. All but one of the patients with PTP have been women. Steroids, exchange transfusions, and plasmapheresis have been employed in the management of patients with PTP.[3]

Because of its rarity, this problem may not be considered in the differential diagnosis of thrombocytopenia. This report concerns what is believed to be the first patient in Nebraska to have documented post-transfusion purpura, and the 20th such patient in literature. Thrombocytopenia was severe but resolved after treatment with corticosteroids and observation.

Case Report

A 52 year old white mother of seven was admitted to the University of Nebraska Medical Center for evaluation of purpura and thrombocytopenia of six days duration. Thirteen days prior to admission, a total abdominal hysterectomy and bilateral salpingo-oophorectomy was performed. Uterine fibroids and left ovarian cyst were found at operation, and two units of whole blood were given. On the sixth postoperative day she developed a sore throat and pharyngeal petechiae were noted. The platelet count was 10,000/cmm. Four units of platelet concentrates were given but the platelet count remained essentially unchanged. Six more units of platelets were administered, but the platelet count on the ninth post operative day was only 14,000/cmm. Both platelet transfusions were associated with fever and chills. Prednisone, 80 mgs/day was begun. Because of continued vaginal bleeding and failure to respond to platelet transfusions, the patient was transferred to the University of Nebraska Medical Center.

On admission vital signs were normal. Petechiae were noted over the palate, hypopharynx, chest, and abdomen. Pelvic examination showed no active bleeding from a well-healed cuff. The physical examination was otherwise unremarkable.

The hemoglobin was 11.2 gms%, with 8% reticulocytes. Red cells indices were normal. The platelet count was less than 5,000/cmm. The WBC count was 14.1 x 10^3 with 87% segmented neutrophils and rare hypersegmented forms, 4% bands, 5% lymphocytes, and 4% monocytes. Haptoglobin was 116, ANA and direct Coombs were negative. Fibrin split products were 64 μg/ml. Serum iron was 34 μg/dl and IBC was 309 μg/dl. Serum folate was 17.8 μg/l and B_{12} was 900 ng/l. The prothrombin and partial thromboplastin times were within normal limits. A bone marrow aspirate showed increased numbers of megakaryocytes with a normal maturation pattern. Iron stores were decreased.

The platelet count remained less than 5,000/cmm for 4 days after admission, then rose gradually over the next 7 days to 67,000/cmm and eventually to normal levels.

The patient's platelets were Pl^{A1} negative and HL-A_2 positive.† The patient's serum contained an antiplatelet antibody, against Pl^{A1} positive platelets, detectable initially at a 1/64 dilution. Three months later the titer of the patient's Pl^{A1} antibody was detectable only in undiluted serum. The Pl^{A1} specificity of the patient's antiplatelet antibody was confirmed by demonstrating that the patient's serum did not react against Pl^{A1} negative platelets. The platelets of both blood donors were found to be Pl^{A1}

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†Kindly determined by Richard H. Aster, M.D. of the Milwaukee Blood Center, Inc.

positive and HL-A$_2$ negative. The serum of one of the donors also showed anti P1^{A1} antibody inhibitory activity, suggesting that soluble P1^{A1} antigen was present in donor blood.

Discussion

Post-transfusion purpura should be recognized as a rare consequence of blood transfusion. Although self-limited, the syndrome causes acute severe thrombocytopenia seven to ten days after blood transfusion, and may simulate idiopathic thrombocytopenic purpura. The hemorrhagic problems associated with PTP may be dramatic, and include melena, hematuria, intracranial hemorrhage, mucosal bleeding, and large hematomata. In addition, most patients have had associated febrile transfusion reactions, and leukoagglutinins have regularly been observed in these patients.[4] Most patients with PTP have lacked one of six known platelet antigens, namely P1^{A1}, which is present in 98% of the population[4] and, including the present patient, have had a previous pregnancy or blood transfusion. Recently the clinical and serologic pattern of PTP appears to have broadened. Thus the disorder has been noted in a P1^{A1} negative male, a P1^{A1} positive female[5] (in whom serologic specificity was not established) and a P1^{A1} positive female in whom the syndrome was related to platelet antibody to HL-A$_2$.[6]

PTP appears to be related to the development of an antibody of the IgG$_3$ subclass to a major platelet specific antigen, P1^{A1}. When P1^{A1} positive platelets are given during blood transfusion, antigen antibody complexes form with destruction of any infused platelets, and of the patient's own platelets. Although the mechanism of destruction of autologous platelets is not precisely defined, it has been postulated that P1^{A1} antigen elutes from donor platelets, and that adsorption of antigen-antibody complexes result in destruction of the patient's platelets as "innocent bystanders," after nonspecific adsorption onto the recipient's P1^{A1} negative platelets.[7]

It has been noted however,[8] that the above hypothesis requires the persistence of P1^{A1} antigen in the recipient for a long period of time, and in the presence of high antibody titres. Accordingly, an alternate pathophysiologic mechanism has been suggested,[8] that anti P1^{A1} antibody in the blood recipient may cross react with the recipient's P1^{A1} negative platelets. All patients with PTP probably have been challenged by P1^{A1} antigen during pregnancy or previous transfusion, and cross reacting antibodies may occur during recall of antibody formation.[9]

The mismatching of the P1^{A1} antigen probably occurs in only 2% of random transfusions,[4] but clinical PTP is only rarely observed. One may speculate that thrombocytopenia in the absence of bleeding may occur, but not be observed after P1^{A1} mismatched platelet administration.

Although future transfusions of P1^{A1} platelets to a patient with PTP theoretically might precipitate another episode, such examples do not appear to have been reported in the literature. In fact, Shulman and associates[10] experimentally administered P1^{A1} positive platelets and blood to one of their patients with PTP after recovery when platelet iso-antibodies were not detectable. Neither thrombocytopenia or antibodies reappeared, however.

Exchange transfusions have induced remission in two reported patients but may cause hazardous antigen antibody reactions, and plasmapheresis has been successfully used once.[3] Administration of steroids is of unproven efficacy but may support vascular integrity in the presence of thrombocytopenia.[11] The majority of patients have improved after several days observation, and as noted the syndrome is unlikely to recur with subsequent blood transfusion.

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An Unusual Case of Idiopathic Retroperitoneal Fibrosis

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IDIOPATHIC retroperitoneal fibrosis (IRF) was first reviewed by Ormond in 1948.[1] In 1960,[2] Ormond reviewed a total of 95 cases. Because of his pioneering descriptions, IRF often is known by the eponym of "Ormond's disease." Recently, there has been increased interest in this disease; a Medlars search of the last 3 years (1975, 1974, and 1973) revealed 44 citations of papers on various aspects of the diagnosis, etiology, associated diseases, treatment and pathological findings in IRF.

The purpose of this communication is to add to the knowledge of this disease by reporting an unusual case of retroperitoneal fibrosis. This case is particularly interesting and unusual from the following aspects:

1. The age of the patient. This patient was 81 years old. The oldest, previous case known to the authors was 75 years old.[2]
2. The mode of presentation. The patient had symptoms primarily compatible with heart failure until 1 week prior to death when he presented with massive scrotal and penile edema. The most common presenting symptoms of retroperitoneal fibrosis are low back, inguinal, and lower quadrant pain along with urinary symptoms such as frequency, oliguria or anuria.[2,3,4,5]
3. Extent of involvement. Pathologically, this was a massive lesion (20 x 20 x 10 cm) involving the perirenal, periadrenal, peripancreatic, perivesical, and periureteral tissue as well as extending up into the mesentery of the small intestine. The periaortic lymph nodes were surrounded but not invaded by the mass. In most cases the mass is smaller, measuring about 2-6 cm in thickness and lying plaque-like over the promontory of the sacrum, and extending laterally to the ureters and upward a variable distance, rarely beyond the renal pelvis and downward to the upper border of the true pelvis.[3]

The lesion in this case has the typical microscopical appearance of idiopathic retroperitoneal fibrosis. (Fig. 2)

Clinical History

This 81-year-old man was initially seen at the hospital on June 5, 1975, with swelling of his lower legs of 3 weeks duration. He also noted a distended abdomen and had the "flu." Physical examination initially revealed a moderately distended abdomen, and a small amount of free fluid was thought to be in the abdomen. The liver was 5-7 cm below the right costal margin. There was a grade IV/VI systolic murmur, particularly at the apex, which was felt to be due to a mitral insufficiency.

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On 6/6/75, the hemoglobin was 10.5 gm%, WBC of 3,650/cu mm with a normal differential. A urinalysis showed a specific gravity of 1.017 and 1+ albumin, and no sugar. The urinary sediment showed a rare WBC/HPF.

The initial working diagnosis was impending heart failure with possible renal failure. He was given 1½ cc of mercaptomerin initially and he was digitalized with digitoxin 0.2 mg daily. He was also placed on a restricted sodium diet and diuretics. He improved greatly and was dismissed on 6/17/75. He continued to take digitoxin. The patient had a previous history of alcoholism and he was warned to abstain.

He did fairly well at home until 9/7/75, when he again complained of extreme shortness of breath and swelling of his lower extremities. However, more remarkable was a massive edema of the scrotum and penis almost to the point of obliterating the glans penis and the meatus. The patient had noted swelling of the scrotum and penis for approximately one week.

He was hospitalized and treated with a low salt diet and mercaptomerin for his chronic pulmonary congestive disease. He was continued on digitalis and was placed on ampicillin. He was noted to have a rather small urinary output. IV fluid was started and he was given 80 mg of furosemide by IV push on 9/8/75. His condition did not improve and on the evening of 9/9/75, he went into ventricular tachycardia. In spite of defibrillation with electroshock, he went in asystole and died.

On admission, the urine showed 0-1 WBC/HPF and an occasional fine granular cast. His hemoglobin had dropped to 7.5 gm%, and there were many macrocytes seen on peripheral smear. The WBC was 7,600/cu mm. The differential showed 14 stabs, 82 segs, and 4 lymphs. The BUN was 33.2 mg%. On 9/8/75, urinalysis revealed 0-2 hyaline casts/LPF. Otherwise, it was essentially negative. The SGOT was 84 units

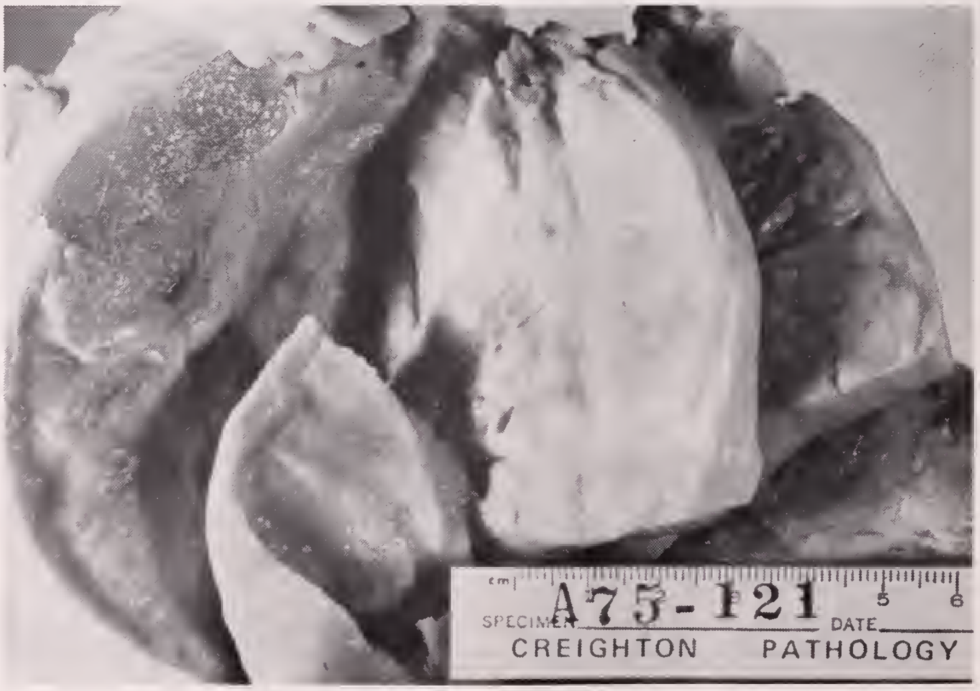

Figure 1: Gross photograph cross-sectioned retroperitoneal fibrosis at base of mesentery. Note how the lesion surrounds vessels and its non-nodular relatively homogenous appearance.

(normal up to 28), LDH was moderately elevated at 680 units, CPK was 158 units (normal to 60), WBC rose to 21,000/cu mm, the differential revealed 20 stabs, 65 segs, 13 lymphs and 2 mono. The peripheral smear at this time showed hypochromia, some target cells with marked anisocytosis as well as macrocytes. On 9/9/75, a urinalysis showed 3+ albumin, with 3-6 WBC/HPF and a full field of RBCs, but the patient had been catherized approximately 24 hours prior to that time and had an indwelling Foley catheter.

Review of the old records showed that in January 1969, he had cystitis and what was felt to be a peripheral neuropathy secondary to his alcoholism. At that time, his urine showed only 5-10 WBCs/HPF.

There was no history of methysergide ingestion.

Post Mortem Findings

At autopsy, the major external finding was massive edema of the penis and scrotum. There was only slight pitting pretibral edema. The major internal finding was a massive, firm, yellow, homogenous mass in the retroperitoneal space extending as far upward as the pancreas and distally to the bladder. Laterally, the mass surrounded the kidneys, adrenals, ureters and the retroperitoneal lymph nodes. It also extended into the mesentery of the small intestine. Figure 1 shows a cross section of the mass as it involved the mesentery. The main features to note are the relatively homogenous, non-nodular nature of the cross sectioned lesion and the manner in which the tumor surrounds structures such as the superior mesenteric artery and vein branches and the mesenteric lymphatics as seen in the lower part of Figure 1. Although the ureters were involved by the lesion, there was no hydronephrosis. Figure 2 is typical of the microscopic appearance of this lesion with normal looking adipose tissue cells interspersed with groups of lipid laden histiocytes and occasional foci of small round cells (Lymphocytes and plasma cells). Note the absence of cellular atypia or mitotic figures. There were no areas with abscesses or true granuloma formation.

Discussion

As the name idiopathic retroperitoneal would indicate, the cause of the disease is unknown. A plethora of theories and etiologic agents have been invoked, ranging from organizing hematoma, trauma, vasculitis, autoimmune, underlying malignancy (none is found in most cases) to sarcoidosis,

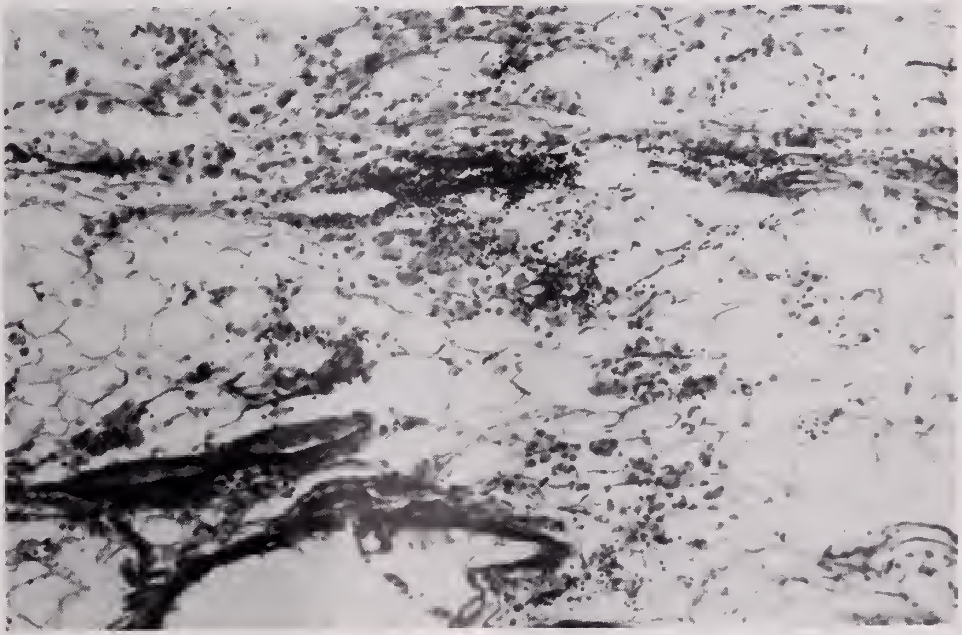

Figure 2: Typical microscopic pattern of retroperitoneal fibrosis (x 100). The major features are the normal adipose tissue cells, lipid laden histiocytes with some focal lymphocytes without signs of malignant proliferation.

tuberculosis, and syphilis. The only proven cause of IRF is methysergide.[6] Intermittent administration of methysergide is recommended to lower the incidence of associated retroperitoneal fibrosis.[6]

The diagnosis of IRF is usually made in patients with urinary tract involvement by the classic urologic findings of ureteral obstruction in the lower lumbar or sacral region, associated with medial displacement of the ureters and persistence of the psoas shadow. Since these findings are only characteristic, but not diagnostic, the unequivocal diagnosis must be made by biopsy at laparotomy. The usual treatment is ureterolysis and intraperitoneal placement of the ureters.[4] Such treatment would probably not have cured our patient since his major problem was lymphatic and venous obstruction, not ureteral obstruction.

There are three major aspects of our case of IRF that are atypical or unusual: (1) age of patient, (2) mode of presentation and (3) size and extent of involvement of the mass.

The typical patient with IRF is a male between the ages of 40 and 60 years. The previously reported age extremes are 8 and 75 years.[2] This patient at 81 extends the previously reported upper age limit of IRF by 6 years. In terms of clinical findings, the typical patient with IRF has the insidious onset of lower abdominal noncolicky pain along with malaise, weight loss, anorexia, anemia, and the gradual onset of urinary symptoms of oliguria, frequency and anuria. Most patients come to medical attention because of urinary tract symptoms.[2, 3, 4, 5] Our patient did not have signs or symptoms referable to the urinary tract until one week before death. In fact, until three months before final admission, our patient had not seen a physician for 6 years. Three months before admission, he had symptoms compatible with congestive heart failure with some edema of the lower extremities. Only during the last week of life did he develop penile and scrotal edema. His BUN was elevated only to the pre-renal azotemic range (33.2 mg%) 3 days before death. Terminally, the urinalysis was not alarmingly abnormal, only showing moderate proteinuria and 3-6 WBC/HPF. He did have moderate anemia which is commonly seen with IRF.[2, 3]

Penile and scrotal edema have been previously, but uncommonly, reported as presenting symptoms of IRF.[5]

More characteristic of IRF is its gradual onset, usually over a period of years.[2,3,4] Our patient seemed to have an almost explosive onset with the time from onset to death being, at the maximum, only three months. The most obvious explanation for this sudden onset of symptoms is that the lesion must have grown very rapidly to achieve the massive size described above without producing symptoms until three months before death. This sudden, severe, lymphatic obstruction, as evidenced by marked edema of the penis and scrotum in the last week of life, is most likely due to rapid growth of the lesion. The cause of growth of IRF, except for methysergide, is totally unknown.[2, 3, 4, 5, 6]

Summary

1. A case of IRF is presented in an 81-year-old man.
2. This case is compared to the more typical cases of IRF. The etiology, pathogenesis, signs, symptoms, methods of diagnosis and treatment, as well as the pathological anatomy of IRF are reviewed.
3. Most cases of IRF can be diagnosed antemortem if patients with long standing or atypical symptoms referable to the lower abdomen, lower extremities, or urinary tract are evaluated for retroperitoneal fibrosis.

Acknowledgement

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New Concepts in Diagnosis and Treatment of Tuberculosis

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PART I

APPROXIMATELY three years have passed since the Kearney State Hospital for Tuberculosis closed (July, 1972). Community hospitals have assumed responsibility for the care of the tuberculous patient and appear to be doing this well. However, the national literature indicates a need for further education of physicians and paramedical personnel involved with the treatment of tuberculosis.[1] This article represents an update of a two-part paper published in the Journal in April and May of 1973 [2,3] summarizing basic science, diagnosis, prevention, and treatment. New information is provided regarding statistics, classification, skin testing, BCG vaccination, isoniazid prophylaxis, treatment, and adverse effects of chemotherapy.

In 1974, 30,122 new cases of active tuberculosis were reported in the United States. This is a decline of 8.39% from the 32,882 cases in 1972. The case rate decreased from 15.3/100,000 pop. to 14.2/100,000. Nebraska had 41 new active cases reported in 1974 compared with 101 in 1972. The case rate, the lowest in the nation, had decreased from 8.9/100,000 to 2.7/100,000.[4]

Classification

A new system of classification[5] was initiated in 1975 which represents a simple and straight-forward statement of clinical findings:

O. No. tuberculosis exposure, not infected
I. Tuberculosis exposure, no evidence infection
II. Tuberculosis infection, without disease
III. Tuberculosis: infected, with disease
  A. Location of disease ....
  B. Bacteriologic status ....
  C. Chemotherapy status ....
  D. Roentgenogram findings ....
  E. Tuberculin skin test status ....

"Tuberculosis Suspect" should not be used to classify a patient for more than three months using this new system. Classification for atypical mycobacterial disease excludes the first three categories. Essentially the classification is the same as III with the addition of the specific organism. For example a 50 year old man presents with far advanced pulmonary tuberculosis with both positive sputa and a reactive skin test. His classification would be as follows:

O. No. tuberculosis exposure, not infected .... ☐
I. Tuberculosis exposure, no evidence infection .... ☐
II. Tuberculosis infection, without disease .... ☐
III. Tuberculosis: infected, with disease .... ☑
  A. Location of disease ...... Pulmonary
  B. Bacteriologic status .... Positive smears, cultures pending
  C. Chemotherapy status ..... Currently INH, Eth.
  D. Roentgenogram findings . . Abnormal, far advanced
  E. Tuberculin skin test status . . Positive

Skin Testing

In 1973 an accepted part of the diagnostic workup was skin testing with atypical antigens.[2] It is true that differential skin testing can be useful in predicting atypical versus typical mycobacterial disease.[6] However, differential skin testing is of little help in treatment since positive identification can only be made by culture. Currently only PPD-T is recommended for routine use, although comparing with atypical antigens is still important in epidemiological investigations for predicting tuberculous morbidity.[7]

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As in 1973 the intracutaneous (Mantoux) test is the most accurate, consistent and reliable of the methods available. Presently, the Committee of Diagnostic Skin Testing of the American Thoracic Society recommends[8] that 5TU (intermediate strength) be the only dose used in ordinary practice with the following interpretations:

10 mm or more of induration = positive reaction

5 mm through 9 mm of induration = doubtful reaction or "inconclusive"

0 mm through 4 mm of induration = negative reaction. No repeat test is necessary unless clinical correlation warrants it.

As with all laboratory tests an inconclusive result or one incompatible with clinical suspicions dictates repetition of the test. A second test should be applied at a different site. If the second reaction is 10 mm or more the person should be regarded as a positive reactor. If again, the result is 5 mm to 9 mm clinical correlation is needed.

BCG Vaccination

BCG vaccine should be used only in situations where a negative reactor is prone to develop disease such as in developing areas where incidence of infection is high and facilities for identification and treatment of the tuberculin converter can not be organized.[9] Various studies relate an amount of protection varying from 0-80%. The wide differences probably are secondary to different populations studies and non-uniform design of studies.[10, 11]

Although BCG programs would have been helpful in the years prior to 1950 as a preventive measure among American Indians, it is no longer applicable. As of 1966 the Public Health Service policy states there is no epidemiologic indication for the use of BCG on a group or community basis in the United States.[12]

Isoniazid Prophylaxis

Isoniazid (INH) prophylaxis is the most effective means of widespread prevention of tuberculosis. The indications for use were changed by the Tuberculosis Advisory Committee and Special Consultants to the Director, Center of Disease Control in February of 1974.[13] They noted that progressive liver damage is observed rarely under 20 years of age, up to 0.3% at ages 20-34 years, up to 1.2% at 35-49 years, and up to 2.3% at 50 years and over. Since there is no way to predict the appearance of INH hepatitis, they recommended that positive tuberculin reactors over age 35 without additional risk factors should not receive prophylactic therapy.

The additional risk factors that warrant INH prophylaxis **regardless** of age are as follows:

1. Household members and other close associates of persons with recently diagnosed tuberculous disease.
2. Positive tuberculin reactors with findings on the chest roentgenogram consistent with nonprogressive tuberculous disease, without positive bacteriologic findings, and without a history of adequate chemotherapy.
3. Newly infected persons whose tuberculin reaction has converted to positive within the past two years.
4. Positive tuberculin reactors in the following special clinical situations:
    a. Prolonged therapy with adrenocorticosteroids.
    b. Endogenous or iatrogenic immunosuppression.
    c. Some hemotologic and reticuloendothelial diseases, such as leukemia or hodgkins disease.
    d. Diabetes mellitus.
    e. Silicosis.
    f. After gastrectomy.

The only change in contraindications to the use of isoniazid was to include pregnancy as a contraindication (in 1973 it was an indication for INH prophylaxis).[2] The contraindications are:

1. Previous isoniazid-associated hepatic injury.
2. Severe adverse reactions to Isoniazid such as drug fever, chills, rash, and arthritis.
3. Acute liver disease of any etiology.
4. Pregnancy (preventive treatment should be started after delivery).

Five groups should receive special attention although preventive treatment is not contraindicated:

1. Those concurrently using any other medication on a long term basis.
2. Those taking diphenylhydantoin.
3. Those who are daily users of alcohol.
4. Those who have previously discontinued isoniazid because of possible but not definitely related side effects.
5. Those who may now have chronic liver disease.

It should be noted that a recent study[14] found a very high incidence of tuberculosis in dialysis patients. 5/136 patients maintained on dialysis for an average period of 1.4 years each, developed tuberculous disease. They indicated the diagnosis may be very difficult since the PPD skin test may be negative and many symptoms and signs of tuberculosis can be found in uremic patients as well. They would like confirmation of their findings before recommending INH prophylaxis routinely in dialysis patients. We suggest heightened awareness of tuberculosis in dialysis units.

The HLA System in Paternity Exclusion: Report of a Case in Nebraska

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Introduction

USING the ABO, Rh and MNSs systems, a man falsely accused of paternity has a 50-60% chance of being excluded. This probability increases to over 90% if serum protein and erythrocyte enzyme polymorphisms are also tested.[3] Testing for other blood group systems, although theoretically useful for exclusion, is not always practical due to scarcity of antiserum for the alleles.

The probability for exclusion on the basis of the HLA system is greater than the cumulative probability of all other systems, due to the many alleles possible at two closely linked loci.[2] Antigens of the HLA system are expressed on all cells of the body, with the possible exception of mature erythrocytes. Lymphocytes are usually used for HLA typing.

Genetics of the HLA System

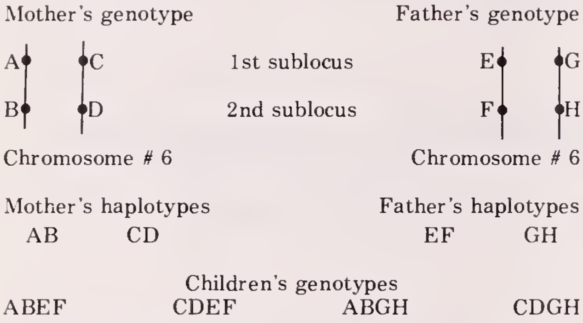
The World Health Organization recognizes 19 antigens at the first sublocus and 20 antigens at the second sublocus of chromosome pair number 6 with HLA specificities. Each person inherits four of these antigens, two en bloc from each parent. The unit transmitted from each parent contains one antigen at the first sublocus, and one antigen at the second sublocus. This unit is referred to as a haplotype. A child must inherit one haplotype from each parent. (Fig. 1) If a child bears an antigen different from any of the four possessed by the alleged father, that man's paternity is excluded.

Case Report

The L. family was referred to this laboratory for HLA typing in an effort to exclude this man's paternity as part of the evidence in divorce proceedings. Both Mr. and Mrs. L. denied his paternity. Mrs. L. admitted to sexual relations with a Negro man during the time when the child could have been conceived. The child, J.L., appeared to have Negroid features. He was ten months old at the time of testing.

ABO, Rh and MNSs typing performed in two other laboratories failed to exclude Mr. L.'s paternity. (Table 1). HLA typing of the three individuals using the microlymphocytotoxicity test of Amos,[1] clearly excluded Mr. L. as the father of this child. (Table 2).

Fig. 1 Mechanism of inheritance of antigens of the HLA system.



(Letters have been arbitrarily assigned to the subloci for purposes of explanation.)

Table 1. Results of red-cell antigen typing in a case of disputed paternity.

	ABO	Rh	MN	Ss
A.L. (Mother)	O	ccdee	NN	ss
L.L. (Putative Father)	O	CcDee	MM	ss
J.L. (Child)	O	ccDee	MN	ss

Table 2. Results of HLA typing in a case of disputed paternity.

	HLA	
	Phenotype	Genotype
A.L. (Mother)	1,5,9,17	1,17/5,9
L.L. (Putative Father)	5,9, W-27	....
J.L. (Child)	1,2,12,17	1,17/2,12

The child inherited the haplotype HLA 1, 17 from his mother and the haplotype 2, 12 from his biologic father. Mr. L.'s phenotype did not include either the 2 or 12 antigen. Interestingly, Mr. and Mrs. L. both shared antigens 5 and 9. Had the child inherited the 5,9 haplotype from his mother, exclusion might have been more difficult. A fortuitous byproduct of this family's testing revealed that Mr. L. possessed the W-27 antigen which is highly associated with ankylosing spondylitis. A recommendation was made that he be evaluated for evidence of this disorder.

Another reference laboratory volunteered to perform additional tests on this family's specimens, including Kell-Cellano, Duffy^{a} and Duffy^{b}, and C^{w} red cell typing, hemoglobin electrophoresis, and G^{m} immunoglobulin typing. None of these tests excluded Mr. L.'s paternity.

Conclusion

Mr. and Mrs. L and their attorneys were in agreement that Mr. L. was not the father of her child because of the child's racially mixed appearance. However, the judge hearing the divorce proceedings refused to exonerate Mr. L. without scientific proof, in order to protect the legal rights of the child. When the results of the HLA testing were presented to the court, they were accepted without contest. Mr. L. was excluded as the child's father based on HLA disparity between him and the child. To our knowledge, this is the first instance of HLA typing being used for exclusion of paternity in the state of Nebraska.

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Asymptomatic Obstructive Airway Defect — An Analysis of Causal Factors. A Study Involving 425 Nebraskans*

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PART II

Discussion

The FEF25-75% has been recommended by Bates[7] and by Leuallen and Fowler[8] as the simplest and yet most sensitive analysis that can be made of the forced expiratory spirogram. Sobol,[9, 10] Birath[11] have found it less useful than other measurements because of poor correlation with other ventilatory measurements and a wide range of normal values. Morris[5] reported that the results of his study reflect a correlation of higher magnitude than those reported in previous studies.

McFadden and Linden[12] observed that the FEF25-75% is frequently abnormal when the FEV1.0 and the maximum expiratory flow rate (FEF200-1200) are within normal limits. These same authors also believe that the FEF25-75% is sufficiently sensitive to detect small airway obstruction while it is potentially reversible. Since we have not followed these patients we do not know whether any physiologic and/or clinical significance can be attached to these observations.

According to Bates,[7] an abnormal FEF25-75% at 30 years of age might be enough to suggest that the individual could be severely affected by emphysema or chronic bronchitis by 50 years of age. Even though the intraindividual variability[13] in the effort independent tests such as the FEF25-75%, are greater than that exhibited by the vital capacity and peak expiratory flow rate we do not believe that this should limit its use.

Although British experience[14] suggests that the FEV1.0/FVC% is the test of choice in detecting obstructive airway defects, we found that this ratio was abnormal in 73 (48.9%) of the 149 subjects in which the percent predicted FEF25-75% was abnormal. In this study the percent predicted FEF25-75% was eight times as sensitive as the FEV1.0 in recording an obstructive airway defect in an asymptomatic individual. Since no validation studies were performed we do not know whether this parameter became less specific as it exhibited greater sensitivity.

Although the capacity to detect mild airway obstruction has been increased by such studies as the volume of isoflow,[15] frequency dependence of compliance,[16] closing volume,[17] we agree with Suprenant and Vance[18] that a high level of sensitivity can be achieved in the diagnosis of the obstructive ventilatory syndrome utilizing the FEF25-75%.

According to Barclay[19] the questionnaire should be an indispensible part of any mass laboratory screening program. Intead of being asymptomatic 104 (24.5%) subjects in this study (Table 3) complained of a productive cough, and/or exertional dyspnea. Almost one-half of these same subjects exhibited a decrease (< 70% predicted) in their FEF25-75%. It is possible that 'false positive' information could have been generated by direct interview with an unfamiliar interrogator. Even though the information obtained by the questionnaire may be more accurate than that imparted by the cooperating physician, the clinical significance of these responses requires further study.[20]

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Several studies have demonstrated that respiratory symptoms were greater in smokers than in non-smokers.[21-26] However, within the group of individuals who had an abnormal percent predicted FEF25-75% in this study, the decrease in the flow rate was not related to the pack-year history of smoking. This agrees with a previous study in which we observed no correlation between the amount and duration of smoking and the degree of pulmonary dysfunction.[27]

Winkelstein[28, 29] and others[30-33] have demonstrated a positive association between air pollution level, mortality from all causes, and deaths secondary to chronic respiratory disease. The level of ambient pollution did not appear to account for the obstructive airway changes observed in this study: Firstly, there was no great concentration of suspended particulates present in the ambient atmosphere of the 14 Nebraska communities*; secondly there was no greater concentration of individuals with abnormal pulmonary changes in the metropolitan as opposed to rural areas (Table 4); and thirdly, even though only 149 (33%) of the 425 subjects exhibited abnormal FEF25-75% changes, 419 (98.6%) had worked or lived on a farm or ranch, and 212 (50%) had exposure to noxious agents (Table 1).

Because of their known exposure to grain dust, animal dander, etc., we were interested in the effects of occupational pollution on the farmers group. When they were compared with the 12 other occupational categories, there was no increase in abnormal changes in the percent predicted FEV25-75%. The present authors, however, would advocate additional studies to evaluate the hazards associated with farming. Long hours of exposure to the elements, use of synthetic fertilizers, sprays, etc., hay grinding, farm drying of grains, repeated transfer of grains in varying stages of condition — all contribute to the inhalation of foreign particles which stress the respiratory defense mechanisms.

Only 7% of the population surveyed had an abnormal α1AT phenotype. This is similar to data presented by Fagerhol[34] in surveys conducted on populations residing in Europe, America, Asia and Africa. Are subjects with partial deficiency in the quantitative level of α1AT and those with the phenotypes PiSPiZ, PiSPiS, PiMPiS, more prone to develop lung diseases?[35, 36]

An analysis of the data presented in Table 4 suggests that those subjects with a PiS and PiZ genes were more likely than the general population to develop an abnormal percent predicted FEF25-75%. There was, however, no evidence to suggest that an inhaled irritant such as cigarette smoke hastened the development of an obstructive airway defect in a genetically susceptible individual.

If the population studied by us were a representative microcosm of the cases who develop symptomatic irreversible COPD, the presumed common and pervasive factors e.g., age, sex, cigarette smoking, occupation, ambient pollution, and childhood disease experience do not seem to possess a definable causal role in the development of an asymptomatic obstructive airway defect. Nor did they possess, according to a recent study,[24] a definable causal role in the development of symptomatic irreversible COPD.

Aside from an abnormal α1AT phenotype, it appears that other causal factors will have to be uncovered before we can discuss the prognostic significance of the asymptomatic obstructive airway changes observed in this study. Until this happens we urge that we commit our resources to early case detection so that potentially threatening individuals can be identified and their clinical source carefully monitored. Emphasis should be placed on the use of spirometry as a routine office procedure.

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*The suspended particulates in a majority of communities fell into Winkelstein's group 1 category (80 mcg/m3/24 hours); and in the remainder the range of the suspended particulates could be characterized as group 2 (80-100 mcg/m3/24 hours).

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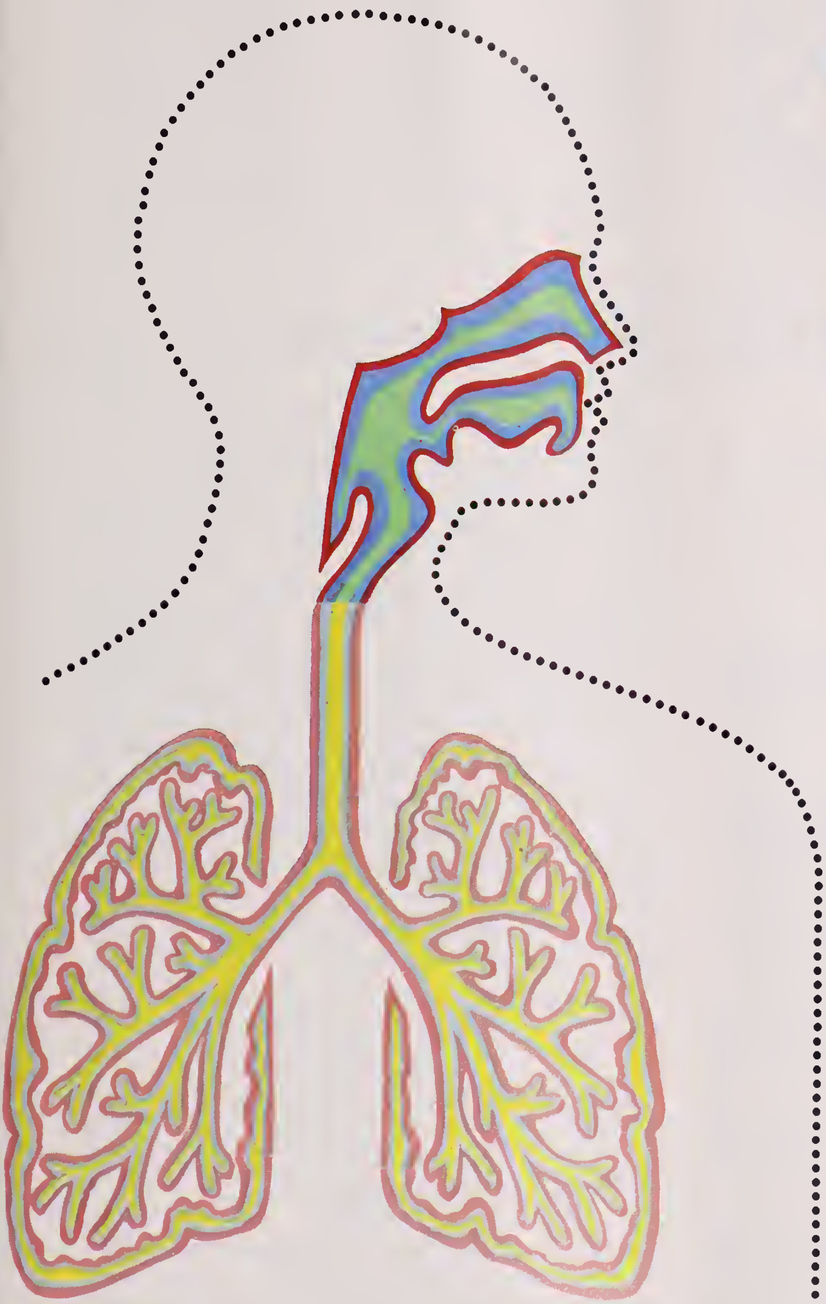

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The above represents a brief summary. See package inserts for full prescribing information.

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Ureteral Colic and Aortic Aneurysm

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THIS paper discusses five cases presenting with symptoms of acute genitourinary tract symptomatology. At either operation or autopsy it was found that these symptoms were produced by ruptured abdominal aortic aneurysms. A review of the literature revealed other cases of aortic aneurysms simulating genitourinary tract disease. The purpose of this paper is to emphasize this masquerade.

Case Histories

Case #1: A 63 year old male security guard was admitted to the hospital with severe pain in the right costovertebral angle and flank. The pain came on suddenly at work without any known precipitating event. The pain was relieved by ½ gr. morphine. The patient had a long standing history of severe arterial hypertension. Four years prior to admission, radiographs showed abdominal aortic calcification with apparent aneurysmal change. A follow-up aortogram failed to demonstrate an aneurysm. Radiographs, six months prior to admission, suggested that indeed an abdominal aortic aneurysm was present and increasing in size. There was marked tenderness in the right costovertebral angle. No abdominal mass was palpable and no murmurs or bruits were heard in the abdomen. The femoral pulses were normal. Except for mild leukocytosis and mild elevation of the blood urea nitrogen, the laboratory evaluation was normal. Abdominal radiographs showed multiple calcified vascular plaques outlining an aneurysm and projecting to the right of the spine. Lateral views showed the aneurysm to have a greatest AP diameter of 88 mm. The right psoas margin was partially obliterated. An excretory urogram showed prompt excretion bilaterally and although the right kidney was slightly displaced laterally, there was no evidence of ureteropelvicaliectasis or obstruction. A diagnosis of ruptured abdominal aortic aneurysm was made, and the patient was transferred to another hospital for surgery and his postoperative course was uneventful.

Case #2: This was a 72 year old male who had enjoyed generally good health until several days prior to admission when he was hospitalized at another hospital for nausea and vomiting. A two consecutive day oral cholecystogram showed a nonfunctioning gallbladder. An abdominal film suggested an aortic aneurysm. During this initial hospitalization pain suddenly developed in the left back and flank region and radiated to the left testicle. Because of an acute drop in hemoglobin, he was transferred to our hospital with the diagnosis of ruptured abdominal aortic aneurysm. Physical examination revealed a 6 cm expansile mass in the supraumbilical area. Peripheral pulses were virtually normal. Laboratory examination was essentially normal. Abdominal radiographs revealed a partially calcified abdominal aortic aneurysm projecting to the left of the spine associated with obliteration of the left psoas margin. An excretory urogram showed displacement of the mid-left ureter to the left and mild dilatation of the collecting system of the left kidney and proximal left ureter. Subsequently, a leaking abdominal aortic aneurysm was resected. Cholecystectomy was also performed for acute cholecystitis. On the day following surgery, the patient suddenly complained of intense chest pain and his blood pressure dropped and attempts to resuscitate the patient failed. No autopsy was performed but it was presumed that the patient died of myocardial infarction.

Case # 3: This 62 year old male had an acute onset of left flank pain with radiation to the groin. There was no antecedent history of renal or bladder stones. Urinalysis showed some microhematuria. The impression was ureterolithiasis. He was medicated with analgesics and antispasmodics. An abdominal radiograph the following morning showed a faint linear calcification to the left of the lumbar spine which raised the possibility of an abdominal aortic aneurysm. There was also fullness of the left psoas shadow. Physical exam at this time suggested a mass in the left lower quadrant. Shortly thereafter, the patient suffered complete cardiovascular collapse. Attempt at resuscitation was unsuccessful. Autopsy revealed an 11 cm aneurysm of the abdominal aorta extending from just below the renal arteries to the femoral arteries. The aneurysm had ruptured retroperitoneally and towards the left. There was an estimated 3,000 ml of blood present within the left retroperitoneal area.

Case # 4: This was a 66 year old male transferred from another hospital because of acute anemia. He was initially hospitalized for pain in the left flank area radiating to the scrotum. He had a history of a ureteral stone 9 to 10 years ago which passed spontaneously. In addition, he had a history of gastrointestinal ulcers for many years and had one episode of gastrointestinal bleeding four years prior which required transfusion. During initial hospitalization, the patient became anuric with no response to intravenous fluids and intravenous diuretics. A voiding cystogram was negative. He was subsequently transferred to our hospital for treatment of renal failure. Upon admission here, he was hypovolemic and was given blood. He passed two melanotic stools. The abdominal girth increased in size, the blood pressure remained low, and the attending physician considered the possibility of a ruptured aortic aneurysm with retroperitoneal dissection. He died six hours after admission to this hospital. Autopsy showed free bloody fluid in the peritoneal cavity and a large amount of retroperitoneal hemorrhage. A very large aneurysm of the abdominal aorta was found, beginning at approximately the renal arteries and extending to the bifurcation of the aorta and into the left femoral artery. The aneurysm had ruptured to the right and posteriorly, with an estimated 5000 ml of blood in the retroperitoneal space bilaterally.

Case # 5: This 69 year old male entered the hospital complaining of a sore right testicle for the past 12 hours. He was nauseated and diaphoretic. The patient stated the testicle had been swollen for the past ten years but had just recently become sore. The patient had had two prior hospital admissions nine and two years previous for a stroke and for a myocardial infarction. No pertinent findings referable to the genitourinary system were found during those two hospitalizations. Vital signs upon admission were normal. The patient expired one hour after admission. A physical examination was not done prior to death. Significant autopsy findings showed a spermatocele of the right testicle and an abdominal aortic aneurysm measuring up to 10 cm in size, originating below the renal arteries and extending into both iliac arteries which had ruptured right laterally and posteriorly with approximately 1200 ml of blood present in the retroperitoneal space.

Discussion

Abdominal aortic aneurysms presenting only with the symptom of ureteral colic is not a new finding. Willis[1] discussed such a case in 1930. Duchanoff[2] discussed a similar case in 1934. Stevenson[3] recorded a case of a dissecting thoracic aortic aneurysm presenting with ureteral colic in 1936, and Whiteside[4] discussed a case of a common iliac artery aneurysm presenting with ureteral colic and testicular pain in 1939. Similar case histories have been presented by Uhle[5], Shumacker and Garrett,[6] Deweerd and others,[7] Crane,[8] Albers and Bettaglio,[17] Cottler and Immergut,[9] Klapman,[10] Pinck,[11] Jacobson and others,[12] Labardini and Ratliff,[13] Thomas and others,[14] and Boontje and others.[15] It has also been pointed out that aortic aneurysms may be associated with other genitourinary symptoms and in 1941 Uhle[5] presented five cases simulating perinephric abscess, perirenal hematoma, hydronephrosis, and renal neoplasm or calculi. In 1961 Culp and Bernatz[16] reviewed 400 cases of abdominal aortic aneurysm treated surgically at the Mayo Clinic and discovered that 10% of these patients had initial complaints suggesting some type of genitourinary disorder. The cases described in the literature describe the whole spectrum of disorders ranging from the incidious onset of uremia[17,18,19,20] to acute ureteral colic simulating a ureteral calculus. It has been stated that symptoms usually occur on the left or bilaterally, but two of the cases discussed in this paper described symptoms occurring only on the right side. The other three cases had symptoms only on the left. Sometimes acute symptoms have appeared intermittently over a period of several months to over a year.[5,6,8,11] Other symptoms which have been discussed are hematuria, acute urinary retention, genital ecchymosis and sexual disturbances.[16,11] As one might expect, acute symptomatology is usually associated with acute dissection of the aortic aneurysm with or without accumulation of a retroperitoneal hematoma, either of which through the mechanism of extrinsic pressure produces some degree of urinary tract obstruction. It is interesting to note however, that many of the cases included in the literature describe partial or complete ureteral obstruction by perianrurysmal fibrosis and encasement of the ureter. In general, the cases describing ureteral obstruction by fibrosis are associated with long standing symptoms.

Summary

This paper describes five cases presenting with acute symptoms referable to the genitourinary system, when in fact these symptoms were secondary to enlarging and bleeding abdominal aortic aneurysms. The correct diagnosis was suspected in cases 1, 2, and 3; and in two of these cases the patients survived long enough for a corrective procedure to be carried out. In cases 4 and 5, the correct diagnosis was not made. A review of the literature reveals other cases of abdominal aortic aneurysms with genitourinary symptoms.

Conclusion

Patients presenting with symptoms of ureterolithiasis may have a completely different etiology for these symptoms. One etiology is abdominal aortic aneurysm. Only a thorough clinical examination combined with plain abdominal radiographs and excretory urography (IVP) can differentiate ureterolithiasis from other causes of ureteral pain.

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Down Memory Lane

1. In the hands of an expert the dangers of roentgen treatments are exceedingly few.

2. Medical examination for life insurance is a desirable office business and by most companies is well compensated.

3. What is the chief function of the medical profession? Is it altruistic? Is it commercial?

4. A dozen state medical associations have full time executive secretaries.

5. The Nebraska American Legion and Auxiliary in annual convention by resolution demanded of the federal government a veterans' hospital for Nebraska. And Nebraska ought to have one.

6. Some Nebraska medical authors furnish such abominably constructed manuscripts as to drive the editor almost frantic in an endeavor to make the articles appear presentable. If the surgical and other work is no more systematic their clientele is to be pitied.

7. The University of Nebraska College of Medicine opened September 20th, with a total enrollment of 284 students.

8. In all other professions and especially in the line of skilled labor wages have increased enormously. The physician is, therefore, justly entitled to larger fees.

9. Exophthalmic goiter is a medical, surgical problem; and proper management should be, first medical, then surgical and again medical.

10. As far as we know no drugs have the least influence on the metabolic rate.

Nebraska State Medical Journal
November 1926.

PRESIDENT'S PAGE

PSRO

Public Law 92-603 was signed into law on October 30, 1972. Such was the Social Security Amendments of 1972 with Section 249F providing for the establishment of Professional Standards Review Organizations (PSRO).

The declared purpose of PSRO was stated to be as follows: "In order to promote the effective, efficient, and economical delivery of health care services of proper quality for which payment can be made, in whole or in part, under the Social Security Act and in recognition of the interests of patients, the public, practitioners, and providers in improved health care services, it is the purpose of this program to assure, through the application of suitable procedures of professional standards review, that the services for which payment be made conform to appropriate professional standards for the provision of health care and that payment for these services will be made (1) only when, and to the extent, medically necessary, as determined in the exercise of reasonable limits of professional discretion; and (2) in the case of services provided by hospital or other health care facilities on an inpatient basis, only when and for the period these services cannot, consistent with professionally recognized health care standards, effectively be provided on an outpatient basis or more economically in an inpatient health care facility of a different type, as determined in the exercise of reasonable limits of professional discretion."

Since such did become the law, the NMA appointed an Ad Hoc Committee on PSRO. Should the NMA develop an "arm" for implementation of this law? Many arguments were presented as to the advantages of the NMA directing and controlling this program for Nebraska physicians. Peer review seemed to be a dominant theme of PSRO and physicians generally are in strong support of meaningful peer review.

Although the majority of the states became involved in establishing a PSRO, the House of Delegates of the NMA postponed such action on several occasions to await further study and developments. Apparently, these were very wise decisions as we learn that many of our sister organizations have become quite disenchanted with their role and with the continuing changes in the rules and regulations as promulgated by HEW. Although peer review is stated to be a dominant theme of PSRO, it develops that the concept of peer review is distorted in this act from one of quality control to cost control in patient care.

It is becoming more and more evident that the spawning bureaucracy being produced by this section of the law is exceedingly costly. A total of $36.3 million dollars in new funds was recently awarded 93 conditional PSROs. What will be the total expenditure for maintaining the 203 PSROs when they all become fully operational?

The NMA champions peer review as a means of ongoing education in the interest of patient welfare. The NMA has always stressed cost control while providing the best possible medical care for Nebraska citizens. By implementing PSRO as an agent of HEW, the NMA would be effectively neutralized in representing the Nebraska physician and would become the enforcing arm of HEW in controlling costs. Such could only work to the detriment of the Nebraska citizen and physician.

I applaud the action of the House of Delegates of the NMA on October 2, 1976, when they stated that "PSRO continues to be a cost control program rather than a quality control program" and that the NMA shall "not at this time become involved in running a PSRO unit."

The NMA represents all Nebraska physicians and is one of the last bastions of support for the Nebraska practicing physician. Let us retain the NMA as an agent of the physician rather than as an agent of HEW in fostering a PSRO. One cannot serve two masters.

Harlan L. Papenfuss, M.D.
President

The Auxiliary

WHY A MENTAL HEALTH PROGRAM?

Mental illness is America's most pressing and complex health problem. Auxiliary members everywhere concerned about this multifaceted need for prevention, treatment and rehabilitation are emphasizing programs for children, adults, and the aging.

One aspect of the situation concerning adults who need mental health education programs on how to be compatible marriage partners, competent parents, and productive citizens is presented in the article which follows.

HAPPY TALK

The quality of any marriage relationship depends largely upon the quality of the communications within the marriage. Communication includes not only what we say but how we say it; not only what we do, but why we do it. Good communication depends on each person's awareness of, and respect for, the other person's individuality. It includes concern for the other's well-being and a willingness to accept the other's ideas and actions, even though they may not measure up to our own standards and expectations. When partners in a marriage share a bond of love and mutual respect, communications ideally fall naturally into habit patterns that express these feelings. This gives both husband and wife confidence in one another and a sense of security and mutual dependence.

In reality, one of the first casualties in marital communications is often old-fashioned courtesy. People with normally pleasant dispositions have no trouble being courteous to strangers and friends. During courtship we use our "company manners" in talking to one another. However, in marriage, when we are deeply involved emotionally, common courtesy often flies out the window. If we were as courteous to our husbands as we were to the milkman, if we listened as politely to our wives as to our patients, marriages would contain much more happy talk.

One of the most destructive forces undermining courteous communications is anger. This is not to say that anger is wrong. Anger is neither right or wrong. It simply is. Anger is an emotion and as such, is one of the most honest things about us. We shouldn't suppress anger, we should control it. What we say in a single moment of uncontrolled rage can have inconceivable long-range consequences. Even expressions of anger should contain elements of respect and courtesy.

Granted, that is easier said than done. For most of us it takes determination and practice. However, the rewards can be infinite. If we can learn to not attack with a scattergun when we are angered, if we can stop and think before acting, the entire family will benefit. If you are furious because your husband AGAIN forgot to give you an important phone message or made a shambles out of your clean living room, don't yell. Don't throw things. Go play tennis, go work in the garden or bake some bread and really pound it. Do anything physical to get rid of the energy that anger produces. Calm down. Then, and only then, discuss the problem. Tell him how angry you were, and why. It is very important to carry through with this step. To shrug it off after you have calmed down is to breed resentment. And ulcers. Talk it out thoroughly. Then leave it. Don't repeat yourself; that's nagging. Don't bring up his nasty Aunt Myrtle, that's irrelevant. Don't take out on him your anger because the kids broke your favorite vase, that's unfair. Leave out the kitchen sink and all other garbage. If you can have a talk that shows respect and courtesy, you have a marriage that contains only HAPPY TALK.

Marlene Foster
Emotional Health Chairman
NMAA

The Letter Box

September 21, 1976

Dear Dr. Cole:

I read with a great deal of interest your Editorial Comment on page 321 of the latest Nebraska Medical Journal. This relates to our time sense, and our ability to define and divine certain time periods. Your comment relative to your time sense at night was especially interesting. I note you feel your internal clock is quite reliable during the daytime, but fails you at night.

This is most interesting because of a comment made by a friend of mine; this was relative to the fact that very few people fall out of bed. If you think about it, it is quite amazing that so few people do fall out of bed, especially since one must sense the dimensions of his pad while the conscious part of one's sensitive mind is out of commission. It is also most remarkable that we learn this very early in the game; it is most unusual for a school-age child to fall out of bed.

Maybe, if you could put your anti-falling-out-of-bed facilities to work on your time sense, you could have a built-in alarm clock. If you succeed in this, I shall be very envious. One of my problems is needing a clock to wake up in the morning. Those people who can set a clock in their brain and rise at that time, refreshed and rested, serene in the knowledge they are going to have a good day, really make me envious.

Again, I enjoyed your dissertation on time sense very much. Possibly you could work on some other abilities of the human brain.

Sincerely,

George J. Lytton, M.D.
Clinical Director
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Between Cases

Clerihew.

Mamma, mamma, cried Joseph Lister,
Tell me what's inside that blister.
Which people thought a lot of fuss
To make about a little pus.
Anon.

Words I Can Do Without.

Verbalize, tantamount, interestingly, ongoing, immunication.

Quote Unquote.

I took so much medicine I was sick a long time after I got well.

Sandburg, maybe.

The Report.

Hemoglobin was markedly near normal with 13.4.

My Favorite Article.

M.J. Murray, M.B. Murray, A.B. Murray, & C.J. Murray. Lancet June 12, 1976: 1283.

The only reference: M.J. Murray, M.B. Murray, & C.J. Murray.

Sounds Remarkable To Me.

The patient's course has been relatively unremarkable since, although approximately the fourth postoperative day he was found dead in bed.

On Being In The Hospital.

Pity is delicious.

Betty Rollin: First, you cry.

What Does It Mean?

Typhus: stupor.

The Diagnosis.

Loss of flexion, left forefinger, residuals of second degree burn, no loss of function is shown.

On Time.

The temples got their name from tempus (L) which means time, because a man's hair gets thin or gray there first. Not mine.

Section On Statistics.

It is estimated that 3,900 healthy people in the United States strangle each year because of food stuck in their throats.

Department Of Surgery

Celsus advised sewing together the coats of the abdominal wall, skin, muscles and peritoneum, separately.

Quote Unquote.

A man can dispose of his own life, can't he?

Solzhenitsyn: Cancer ward.

On Compensation.

With the help of the thorn in my foot, I spring higher than anyone with sound feet.

Kierkegaard, I think.

Quote Unquote.

So much has been written about everything that you can't find out anything about it.

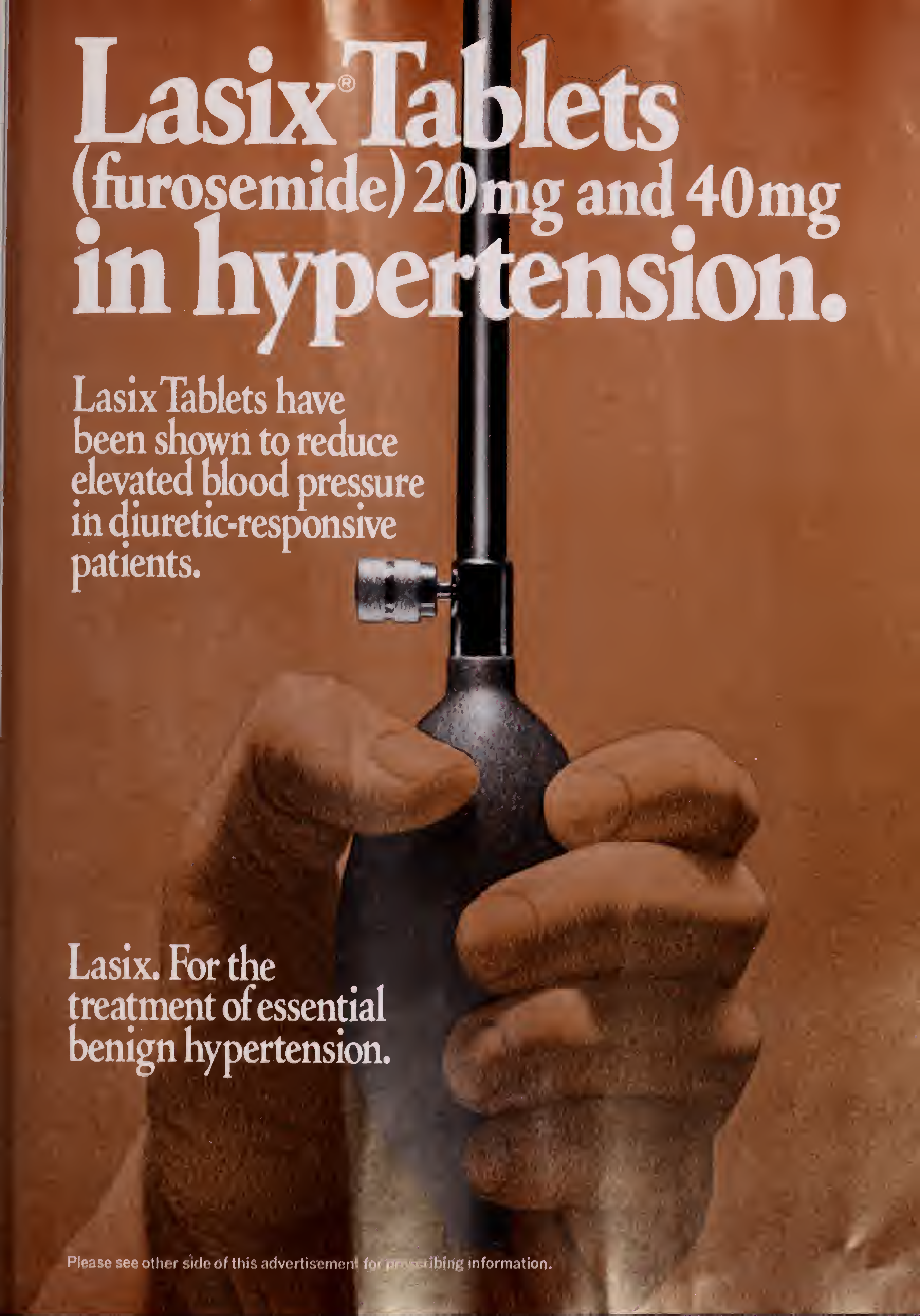
Thurber.

—F.C.

Our Medical Schools

HERNIA: May 18-20, 1977: Criss III Auditorium, Creighton University campus, Omaha; for surgeons, family practitioners, pediatricians, internists, medical students. Coordinator: Irving B. Margolis, M.D., Dept. of Surgery.

This continuing medical education offering meets the criteria for 16.5 hours of credit in Category 1 for the Physician's Recognition Award of the American Medical Association, and is acceptable for 16.5 prescribed hours by the American Academy of Family Physicians. Fee: $100.



Lasix® Tablets (furosemide) 20 mg and 40 mg in hypertension.

Lasix Tablets have been shown to reduce elevated blood pressure in diuretic-responsive patients.

Lasix. For the treatment of essential benign hypertension.

Please see other side of this advertisement for prescribing information.

Lasix® Tablets (furosemide) 20 mg and 40 mg in hypertension.

A brief summary of the Prescribing Information for

Lasix® (furosemide) Tablets 20 mg and 40 mg

WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO_2 and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperuricemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering curare or its derivatives to patients undergoing therapy with Lasix (furosemide), and it is advisable to discontinue Lasix (furosemide) for one week prior to any elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticaria and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, or diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (with purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported; however, relationship to the drug has not been established with certainty: sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinary frequency.

Dosage and Administration

ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as a single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individually determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day in those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged periods, careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent as soon as Lasix (furosemide) is added to the regimen to prevent excessive drop in blood pressure. As the blood pressure falls under the potentiating effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infants and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white, round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information

Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD_{50} of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD_{50} ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD_{50} of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often became dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of the drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in rats and dogs. In a one-year study in rats, renal tubular degeneration occurred, with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed calcification and scarring of the renal parenchyma at all doses above 10 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 17 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused maternal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate fetal lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of the renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.

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EDITION 5/76

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Dwight Rickard, M.D.
1454 - 28th Avenue
Columbus, Nebraska 68601

Robert C. Seiler, M.D.
2101 Lincoln Avenue
York, Nebraska 68467

Steven R. Thomas, M.D.
2101 Lincoln Avenue
York, Nebraska 68467

WashingtoNotes

Medical education.

After three long years of sometimes bitter infighting, the Congress has passed legislation to provide more than $2 billion over a three-year period for medical education assistance.

The major battle fought by the AMA, the Administration, and others defeated the prolonged efforts of some to use the so-called Health Manpower bill as a vehicle for federal dictation of curriculum, regional allocations, federal service, and licensure of physicians.

As a result of the legislation's passage, medical schools are assured of a continuation of capitation and construction funds, medical students will have increased opportunities for federal scholarships and loan assistance, and the government's National Health Service Corps stands firmly entrenched as an expanding program to channel physicians into shortage areas. In addition, medical schools will be required to produce more "primary care" physicians.

The most controversial feature in the separate bills that had been approved earlier in the House and Senate had been a House provision compelling medical graduates to pay back in money or in shortage area service for the capitation aid their medical schools had received (rather than individual scholarships or loans the students might have taken). This was not contained in the Senate bill nor in the final compromise measure worked out by the House and Senate conferees.

Only one burdensome requirement of importance remained in the bill. As a condition for capitation aid, medical schools must have in 1978 at least 35 percent of their filled first year positions in direct or affiliated residency training programs in primary care, defined as Family Medicine, General Internal Medicine, and General Pediatrics. This percentage rises to 50 percent by 1980.

Rather than requiring certain percentages of medical school graduates to enter shortage area service or join the National Health Service Corps (NHSC), the new medical education bill simply puts up enough PHSC scholarship funds to assure sufficient numbers or young physicians entering the program. Authorized for such scholarships are $75 million for the fiscal year starting this October, $140 million next fiscal year and $200 million for fiscal 1980. Also $51 million over three years was authorized for special scholarships for "students who are of exceptional financial need."

For construction of ambulatory, primary care teaching facilities for physicians and dentists, the legislation authorized $120 million for three years.

The capitation grant levels were set at $2,000 per student for the coming fiscal year, $2,050 for fiscal 1979, and $2,100 the next year.

New restrictions were imposed on alien foreign medical graduates including a requirement they return to their country of origin after training. U.S. citizen graduates of foreign medical schools would be given special consideration for acceptance by American medical schools. Medical board and English proficiency tests are specified for immigrating health professionals.

Medical aid for Indians.

Congress has sent to the White House legislation to expand medical aid for Indians. The measure authorizes a three-year program for health professions recruitment and preparatory scholarships for Indians, and for scholarship and extern programs to provide physicians, dentists, and other health professionals.

The bill authorizes construction and renovation of Indian Health Service hospitals, health centers, health stations, and other facilities. It eases medical standards for Indian Health Service facilities, and makes the facilities eligible for Medicare and Medicaid reimbursements.

Blood banks.

Hospital-based blood banks have charged that the American National Red Cross is threatening a crisis in blood supply. At issue is the Red Cross decision to cancel its agreement with the American Association of Blood Banks to exchange blood through the AABB clearinghouse program.

The AABB, which represents most major hospital banks in the country, termed the Red Cross decision, effective Oct. 19, a "drastic step" that "will have an adverse effect on the nation's blood supply and will serve to fragment the blood banking system in this country."

The blow-up pits the completely voluntary, no-credit approach to blood collection as embodied by the Red Cross against the philosophy of individual responsibility of advance credit of the hospital banks.

S.S. numbers.

The AMA has asked Congress to drop a proposed tax provision that would authorize state and local governments to require Social Security numbers to be submitted in administration of any "general public assistance program."

"We are concerned that the term 'general public assistance program' could be defined to include such health programs as local neighborhood health clinics, drug, alcohol, or venereal disease programs, as well as the Medicaid program," said James Sammons, MD, AMA Executive Vice President.

He continued: "A confidential relationship between a physician and his patient regarding medical care is necessary, especially with respect to such sensitive medical conditions as venereal disease, drug use, mental illness, and abortion. The individual citizen must be assured that his medical care will be kept in strictest confidence in order to assure that degree of open and candid discussion which is necessary for proper treatment. The current language . . . would infringe upon this right of confidentiality of persons who require public assistance in obtaining medical care."

Coming Meetings

NEBRASKA HIGH SCHOOL TEAM PHYSICIANS SEMINAR, November 6, 1976, Lincoln Hilton Hotel, Lincoln, Nebraska.

CRIPPLED CHILDREN'S CLINICS
November 13 — Ainsworth, Elementary Grade School
December 4 — Alliance, Central School Building
December 11 — North Platte, Elks Lodge

23rd ANNUAL SCIENTIFIC SESSION OF THE NEBRASKA OB-GYN SOCIETY MEETING (N.O.G.S.). This meeting will be held at the Frontier Hotel in Las Vegas, Nevada on December 2, 3 and 4, 1976. Dr. G. W. Orr is the program chairman, Dr. Ted Koefoot is local arrangements chairman.

AMERICAN MEDICAL ASSOCIATION — 30th Clinical Convention, December 4-8, 1976, Philadelphia, Pennsylvania.

NEBRASKA ACADEMY OF FAMILY PHYSICIANS — Annual Scientific Session, March 24-25, 1977, Cornhusker Hotel, Lincoln, Nebraska.

NEBRASKA MEDICAL ASSOCIATION ANNUAL SESSION — May 1-4, 1977, Holiday Inn, Omaha, Nebraska.

INDIANA CHAPTER ACEP-EDNA EMERGENCY MEDICINE SEMINAR will be held at the Airport Hilton Inn, Indianapolis, Indiana on May 11 through May 14, 1977. CME Credits Applied For: 20 hours; Co-sponsor: Indiana University School of Medicine. Fee: $50.00 - $100.00. Contact: David Gettle, M.D., 10005 Hillsdale, Carmel, Indiana 46032, 317-844-7105. Note: This seminar is in conjunction with the first day of Time Trials for the Indianapolis 500 Memorial Day Race.

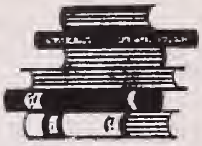
AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 18-23, 1977, San Francisco, California.

POSTGRADUATE EDUCATION FOR PEDIATRICIANS AND OBSTETRICIANS — The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate programs for pediatricians and obstetricians in the field of Maternal and Child Health and Family Planning. Program areas available at the present time include nine-month programs in Maternal and Child Health, in the Health of the School-Age Children and Youth, and Day Care and the Preschool Child. Twenty-one month programs in Care of Handicapped Children and Comprehensive Health Care, and a thirty-three month program in Perinatology are also available. These programs all lead to the degree of Master of Public Health, and tax-exempt Fellowship support is available. Applications are now being accepted for the group entering September, 1977. For information, write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

NEBRASKA MEDICAL ASSOCIATION FALL SESSION — September 30 - October 1 & 2, 1977, Lincoln Hilton Hotel, Lincoln, Nebraska.

COLONOSCOPY TRAINING PROGRAM — The New York Society for Gastrointestinal Endoscopy supported by a Cancer Control Grant from the American Cancer Society, will now offer two week training programs in the techniques of fiberoptic colonoscopy for the detection and management of colonic neoplasm to qualified physicians and surgeons. The training program will be conducted at several institutions in New York City. Preference will be given to those physicians and surgeons who have had previous experience with fiberoptic endoscopy and who are from community where fiberoptic colonoscopy is not yet readily available. Please send curriculum vitae to: Paul Sherlock, M.D., Chief Gastroenterology Service, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, New York 10021.

Books



Getting it: the psychology of est; by Dr. Sheridan Fenwick; 191 pages; hard cover $7.95; published 1976 by J. B. Lippincott Co., Philadelphia and New York.

The author has her doctorate in psychopathology and social psychology from Cornell University; has been director of social policy, Department of City Planning, Chicago, and assistant attending psychologist, Montefiore Medical Center, New York; she is now a faculty member of the psychology department at Columbia University.

She took est, which stands for Erhard seminars training. Est was founded in 1971 and now 70,000 people are said to have participated in it. There are now TM, TA, Esalen, Arica, Gestalt, Mind Dynamics, est, and Sufi; she went through all of est.

She describes her training, which you may be able to follow, and answers questions you may possibly find interesting and want answered.

—F.C.

Review of medical pharmacology; by Frederick H. Meyers, M.D., Ernest Jawetz, M.D., and Alan Goldfien, M.D.; 740 pages; limp cover $12.50; published 1976 by Lange Medical Publications, Los Altos, California.

This is the fifth edition of this book, having first appeared in 1968. It has since been translated into Portuguese, Spanish, German, and Japanese. It is obviously up-to-date; it has an appendix, figures, references, and tables. The text is divided into 8 parts, and further into 66 chapters.

The type is good and reading is easy. I counted 6 more contributors in addition to the 3 authors and to 7 other doctors they thanked. The book seems well written and, to a nonpharmacologist reviewer, well worth its price.

—F.C.

Basic and clinical immunology; edited by H. Hugh Fudenberg, M.D., Daniel P. Stites, M.D., Joseph L. Caldwell, M.D., and J. Vivian Wells, M.D.; 653 pages; limp cover $12.50; published 1976 by Lange Medical Publications, Los Altos, California.

The editors are from South Carolina, California, and Sydney. I counted something like 38 additional authors. The book is divided into four sections, and further into 40 chapters, and it has an index, a glossary of terms, references, and figures.

This is a first edition; a second is planned for 1978. There is no denying the importance of immunology and its texts, what with transplants and tumors. Some of Lange publications are called handbooks and reviews; this is not. There are many good books on the subject, the editors write, but this is an imposing and a welcome addition. It is up-to-date, well printed, and well written.

The second edition will soon be called new, and this, the first edition, old, and it is appropriate that I found Job and his syndrome here. His boils may have been cold abscesses; the prognosis is uncertain, but he did all right, I remember.

If you collect first editions, collect this one.

—F.C.

Medicinews

Medicare.

Beginning in January 1977, a person who goes to the hospital under Medicare will be responsible for the first $124 of his hospital bill. The present deductible of $104 will remain in effect for Medicare hospital admissions during the rest of 1976.

NOT TOO LITTLE

- as potent as the pain you need to relieve in patients with fractures, sprains, strains, wounds, contusions, and the pain of surgical convalescence
- unlike acetaminophen/codeine combinations, it does not sacrifice anti-inflammatory action

NOT TOO MUCH

- potent—yet not excessive
- addiction liability low

NOT TOO EXPENSIVE

- brand-name quality, yet reasonable in cost
- readily available in both hospital and local pharmacies

CIII CONVENIENCE

- telephone Rx in most states, up to 5 refills in 6 months at your discretion (where state law permits)

EMPIRIN® COMPOUND WITH CODEINE NO. 3

codeine phosphate* (32.4 mg) gr ½
Each tablet also contains: aspirin gr 3½, phenacetin gr 2½, caffeine gr ½. *Warning–may be habit-forming

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ADVERTISERS' INDEX

B

Beltone Electronics Corp. 5
Burroughs Wellcome Co. 25

D

Donley Medical Supply Co. 11

H

Hoechst-Roussel Pharmaceuticals, Inc. .. 15, 16, 17, 18, 434A, 434B

L

Eli Lilly and Company 24

M

Mallinckrodt, Inc. 425

N

Norfolk Printing Co., Inc. 6

P

Pharmaceutical Manufacturers Association 12, 13

R

Roche Laboratories 2, 3, 20, 21, 27, 28
Roerig & Company 22

S

Smith Kline and French Laboratories 7

U

Uphohn Company (The) 8, 9, 10
U. S. Navy, Recruiting District, Omaha 6

Physicians' Classified

ONE OF LINCOLN'S finest Medical-Dental Office Buildings will have available after November 1, 1976, one large and one medium sized medical office suite. Will redecorate or redesign to suit tenant. Please contact Dick Gaughan, 489-2718 or Dr. T. L. McKee, 489-5440 or call at Business Office, Suite 1600, 5440 South Street.

TWO FAMILY PHYSICIANS with large hospital practice wish third associate, who is Board Eligible, to join busy family practice. Located in Waterloo, Iowa, a northeast Iowa community of 75,000. All records dictated on the Problem Orientated Medical Records System. Contact: Drs. Ronald D. Flory and Ronald R. Roth, 611 Black's Bldg., Waterloo, Iowa 50703.

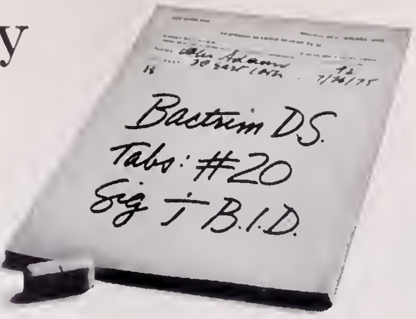
PHYSICIAN NEEDED — A physician is needed to practice in the Nebraska Penal and Correctional Complex hospital and clinic. Located in Lincoln, Nebraska, a clean, progressive community with an excellent school system and colleges. Contact Gary Burger, Personnel Director, Department of Correctional Services, Box 94661, Lincoln, Nebraska 68509.

PSYCHIATRIST — With an interest in Forensic Psychiatry wanted to practice in the Nebraska Penal and correctional Complex. Located in Lincoln, Nebraska, a clean, progressive community with an excellent school system and colleges. Contact Gary Burger, Personnel Director, Department of Correctional Services, Box 94661, Lincoln, Nebraska 68509.

FAMILY PRACTICE opportunity in Rich Farming Community, West Central Iowa. Beautiful, progressive city with new hospital. 5 minutes to 100-bed hospital, Friendly community, good production contract, Well-established 6-man group, short time to full partnership. Call Ed Murphy, Carroll Medical Center, 502 North Court, Carroll, Iowa 51401, Phone (712) 792-1500.

PSYCHIATRIC RESIDENCY: Vacancies for positions for July 1, 1977, for those who have a regular Iowa License or can obtain one by reciprocity or Via FLEX. Prepare for career in private practice, community clinics or hospital-based psychiatry. Emphasis on close supervision of intensive individual and group psychotherapy, OPD, Children's Unit, Adolescent Unit. Neurology affiliation with University of Iowa. The stipends are: 1st Yr. $21,294; 2nd Yr. $22,360; 3rd Yr. $23,478. Intensity and diversity of training program appreciated best by personal visit. T. B. McManus, M.D., Superintendent, Mental Health Institute, Cherokee, Iowa 51012. Equal Opportunity Employer. Call Collect: 712-225-2594.

10-day Bactrim therapy outperforms 10-day ampicillin therapy.



In a multicenter, double-blind study of patients with chronic or frequently recurrent urinary tract infection, Bactrim 10-day therapy outperformed ampicillin 10-day therapy by 27.2%, when comparing patients who maintained clear cultures for eight weeks. Criterion for "clear culture" was 1000 or fewer organisms/ml of urine.

While adverse reactions noted in this study were mild (*e.g.*, vomiting, nausea, rash), more serious reactions can occur with these drugs. See manufacturer's product information for complete listing. Maintain adequate fluid intake; perform frequent CBC's and urinalyses with microscopic examination.

Note: Bactrim tablets were used in these clinical trials. Bioequivalency studies show one Bactrim DS double strength tablet is equivalent to two Bactrim tablets.

Bactrim™ DS
(160 mg trimethoprim and 800 mg sulfamethoxazole)
Double Strength tablets
Just 1 tablet B.I.D.

Bactrim™

(80 mg trimethoprim and 400 mg sulfamethoxazole)
2 tablets B.I.D.

For chronic or frequently recurrent cystitis and pyelonephritis due to susceptible organisms.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Chronic urinary tract infections evidenced by persistent bacteriuria (symptomatic or asymptomatic), frequently recurrent infections (relapse or reinfection), or infections associated with urinary tract complications, such as obstruction. Primarily for cystitis, pyelonephritis or pyelitis due to susceptible strains of *E. coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris* and *Proteus morganii.*

NOTE: The increasing frequency of resistant organisms limits the usefulness of antibacterials, especially in these urinary tract infections. The recommended quantitative disc susceptibility method (*Federal Register, 37*:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. **Data are insufficient to recommend use in infants and children under 12.**

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12. Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) every 24 hours
Below 15	Use not recommended

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10.

Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole; fruit-licorice flavored—bottles of 16 oz (1 pint).

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Nutley, New Jersey 07110

In a multicenter study of patients with chronic or frequently recurrent urinary tract infections

Bactrim was 27.2%* more effective than ampicillin in keeping patients infection-free for 8 weeks.†

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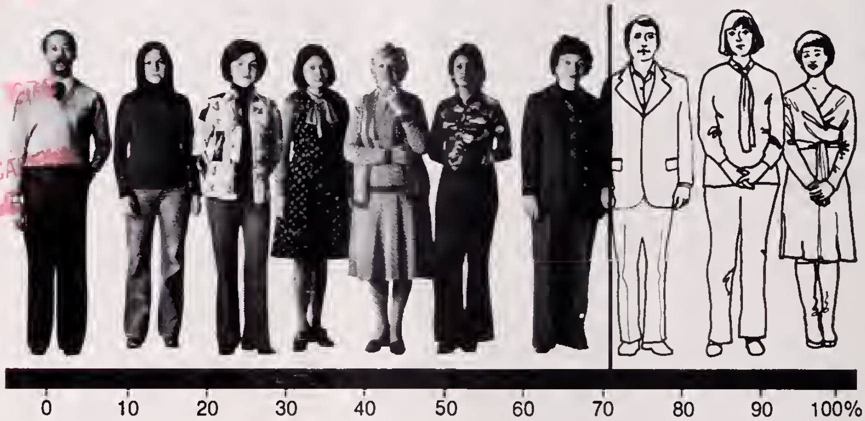
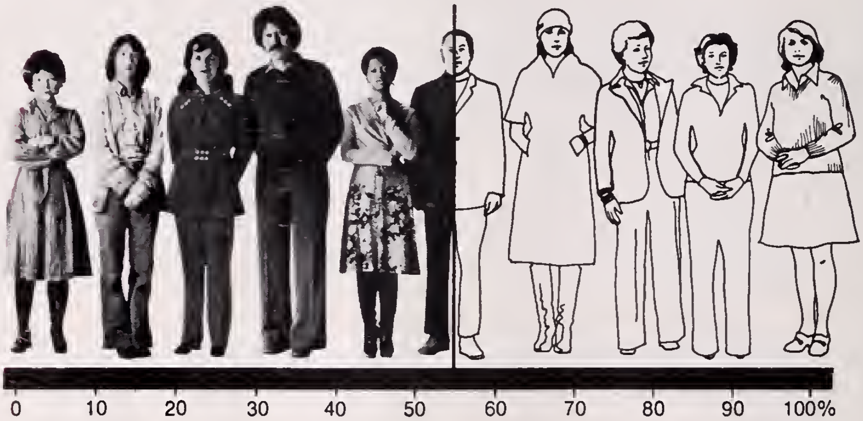


Bactrim–70.5% of 78 patients infection-free at 8 weeks.



ampicillin–55.4% of 74 patients infection-free at 8 weeks.

*This percentage is arrived at by the statistical method of dividing the difference between Bactrim and ampicillin results (15.1%) by the percent of ampicillin results (55.4%).

†Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey 07110

Bactrim™ DS

(160 mg trimethoprim and 800 mg sulfamethoxazole)

Double Strength tablets
Just 1 tablet B.I.D.

Note: Bactrim tablets were used in these clinical trials. Bioequivalency studies show one Bactrim DS double strength tablet is equivalent to two Bactrim tablets.

Please see summary of product information on preceding page. ROCHE

The Nebraska Medical Journal

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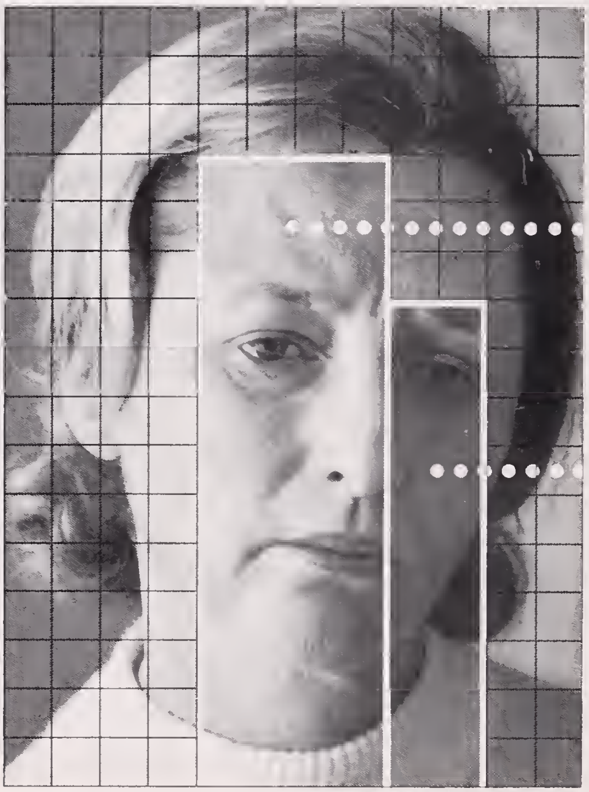
Predominant psychoneurotic anxiety
Associated depressive symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful

respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as the excessive anxiety is relieved, the depressive symptoms associated with it are also often relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.

Valium® (diazepam) Ⓘⓥ
2-mg, 5-mg, 10-mg scored tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

The Nebraska Medical Journal

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DECEMBER 1976 VOL. 61, NO. 12

EDITORIALS —

The Undecided 439
Nobody Lives Forever 439
In Conclusion 439
Notes On Smoking 440
The Moving Finger 440

ORIGINAL ARTICLES —

The University of Nebraska Medical Center Laminar Air Flow Facility — Analysis of One Year's Experience ... 441
R. B. Davis, M.D.
J. Fritz, B.S.
E. Peterson, M.S.N.
L. Rauschenberg, B.S.
J. C. Davis, M.D.
P. Dettman, M.D.
M. Quaife, M.D.

Colonoscopic Polypectomy — Initial Experience, Part II 445
Joseph E. Stitcher, M.D.
David R. Dyke, M.D.
O. R. Hayes, M.D.
Linda Jacobs, B.S.

New Concepts in Diagnosis and Treatment of Tuberculosis, Part II ... 449
Russell A. Novak, M.D.
Louis W. Burgher, M.D.

Undergraduate Grade Point Average, Science Grade Point Average, and Science Hours as Predicators of Medical, Physical Therapy and Physician's Assistant Students Performance in Gross Anatomy 452
John G. Sharp, Ph.D.
Richard H. Jensen, Ph.D.
Ernest D. Prentice, Ph.D.
William K. Metcalf, M.D.

Summary of State of Nebraska Tuberculosis Program 458
Henry D. Smith, M.D., M.P.H.

A Comparison of Hemodialysis and Transplantation in the Treatment of End-stage Renal Failure Secondary to Diabetic Nephropathy 459
Jeffrey Passer, M.D.
Frederick Ware, M.D., F.A.C.P.
Richard Steenburg, M.D., F.A.C.S.
Daniel B. Stone, M.D., F.A.C.P.

Clinical Notes: Something Borrowed — Something Blue 464
Jerome Bleicher, M.D.
M. Cegielski, M.D.
Jose Saporta, M.D.

DOWN MEMORY LANE 465

FEATURES —

President's Page 466
The Auxiliary 467

BETWEEN CASES 468

NEBRASKA —

Picture Gallery 469
Welcome New Members 470

THE OTHER STATES —

WashingtoNotes 470
Coming Meetings 472
National Organizations 10A

AROUND THE WORLD —

The Letter Box 473
Books 473

REPORTS —

Reports of Officers, Delegates and Committees 474
Report of Board of Councilors 495
Report of House of Delegates 496
Index to Volume 61 505

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Acute **Hyperkalemia Induced by Hyperglycemia** — S. Goldfarb et al (Hosp of the Univ of Pennsylvania, Philadelphia 19104) Ann Intern Med 84:426-432 (April) 1976.

Two insulin-requiring diabetics with isolated hyporeninemic hypoaldosteronism spontaneously developed hyperkalemia that was aggravated whenever blood glucose concentration rose. Acute glucose infusions raised the serum potassium concentration in these patients with combined insulin and aldosterone deficiency but lowered, or did not change, the serum potassium concentration in normal persons and in patients with either aldosterone or insulin deficiency alone. The paradoxic hyperkalemic response to glucose in patients with combined hormonal deficiency was blunted by prior administration of desoxycorticosterone acetate and abolished by prior administration of insulin. These studies emphasize the crucial roles played by insulin and aldosterone in regulating the serum potassium concentration in man, and the need to avoid hyperglycemia in patients with combined insulin and aldosterone deficiency.

ADVICE TO AUTHORS

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Manuscripts to be presented for publication in the JOURNAL should be typewritten, double-spaced, on one side only of firm (not onion skin or flimsy), standard letter size (8½ by 11 in.) white paper. Wide margins (at least 1¼ in. on left) should be left free of typing. On the first or title-page should be shown the title of the article, the name (or names) of the author, his degree and other significant credits. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

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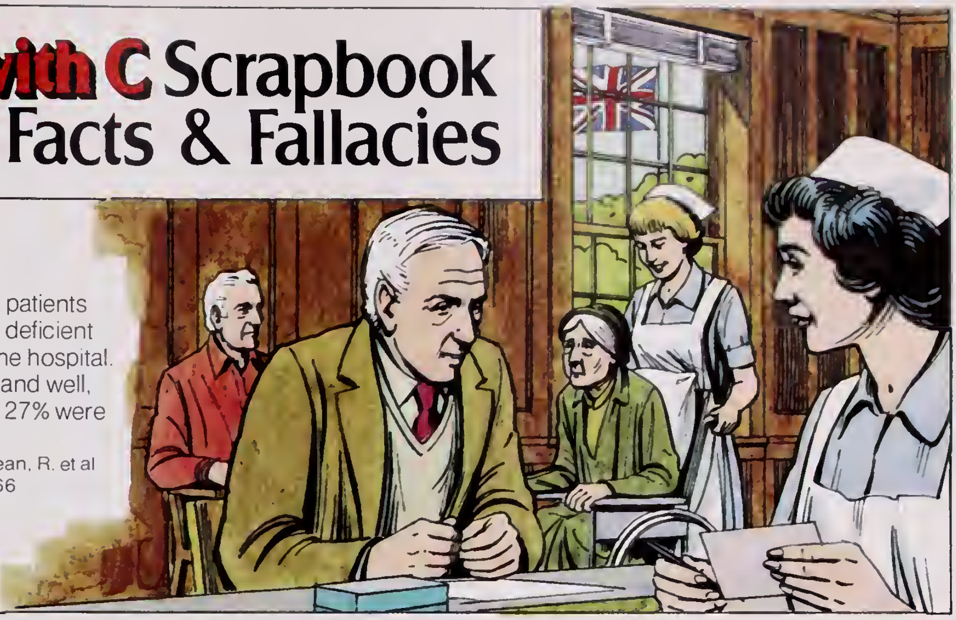

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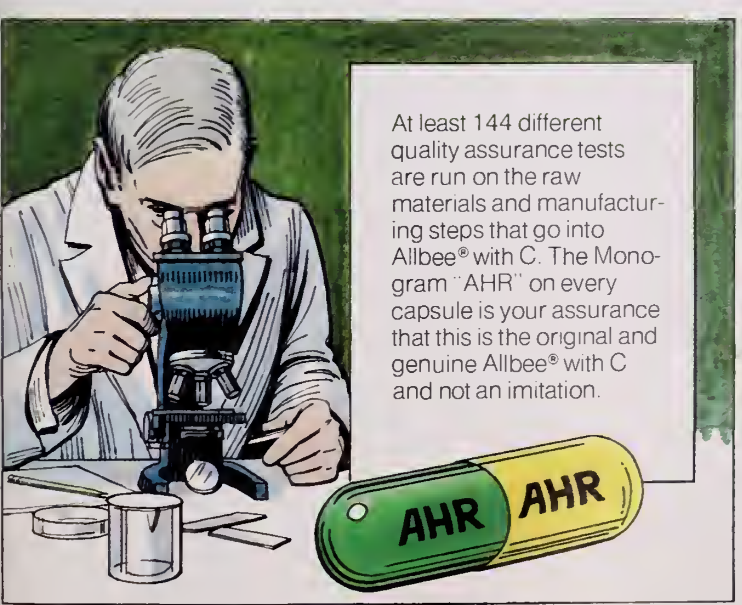

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Brief summary. Contraindicated in patients with glaucoma, renal or hepatic disease, obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy) or a hypersensitivity to any of the ingredients. Blurred vision, dry mouth, difficult urination, and flushing or dryness of the skin may occur at higher dosage levels, rarely at the usual dosage.

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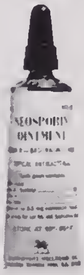
Prophylactically, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing **CONTRAINDICATIONS:** Not for use in the eyes or external ear canal if the eardrum is perforated This product is contraindicated in those individuals who have shown hypersensitivity to any of the components **WARNING:** Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended **PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs. **ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section)

Complete literature available on request from Professional Services Dept. PML



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One Drug [Phenytoin] in Treatment of Epilepsy — E. H. Reynolds et al (Institute of Psychiatry, London) Lancet 1:923-929 (May 1) 1976.

Thirty-one, previously untreated, adult outpatients with idiopathic or focal grand-mal or focal minor seizures were treated initially with phenytoin. Serum phenytoin concentrations were monitored to achieve an optimum range of 10 μg to 20 μg/ml if necessary. With a mean duration of follow-up of 14.7 months, only three (10%) patients have required the addition of a second drug, although without the guidance of serum concentrations, 16 (54%) might have been treated with a further drug. In the optimum serum phenytoin range, only one grand-mal attack occurred in this series, compared with a mean pretreatment grand-mal seizure rate of 1.1 per month. Serum phenytoin levels declined slowly in 14 (45%) patients. Many epileptic patients could be satisfactorily treated with one drug instead of the polypharmacy that they usually receive.

Cimetidine in Duodenal Ulcer — T. C. Northfield et al (St George's Hosp Medical School, Tooting, London, England) Lancet 2:174-176 (July 24) 1976.

As part of a double-blind controlled clinical trial of cimetidine (1.6 gm daily) in patients with endoscopically proved duodenal ulcer, repeat endoscopy was done in 24 patients after two or six weeks' treatment. At six weeks, nine out of 11 patients receiving cimetidine and three out of 12 patients receiving placebo had healed ($P < .025$). A separate open pilot trial in 23 patients has shown no difference in ulcer healing at six weeks between patients taking 0.8 and 1.6 gm daily. A total of 32 different patients received cimetidine in the two trials, and ulcer healing was observed in 21 (66%) at six weeks. No patient showed evidence of bone marrow toxicity. A small but significant rise in mean SGOT, SGPT, and serum creatinine occurred in 13 patients taking cimetidine 1.6 gm daily, but not in 13 patients taking 0.8 gm daily.

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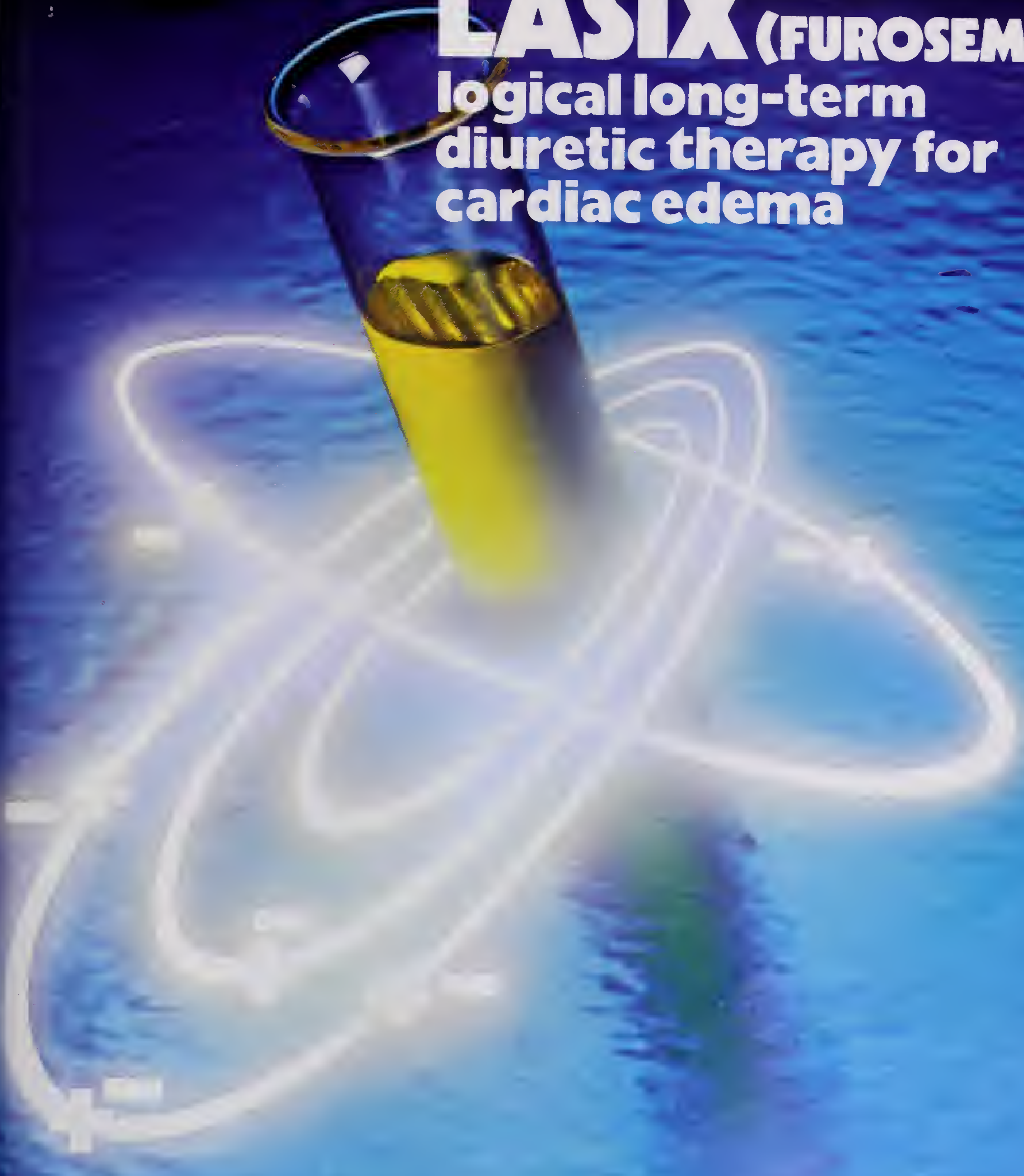
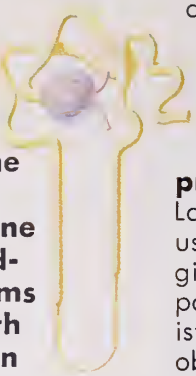


(Please see last page of this advertisement for prescribing information.)



The Lasix® site of action is a distinctive advantage—for it results in fewer electrolytes in each liter of urine than with other commonly used diuretics.[1,2] That is why, if you control urine volume through individual dosage adjustment, you may face fewer problems with electrolyte disturbances.[3] As with any diuretic, electrolyte depletion can occur during therapy with furosemide. Careful clinical and laboratory observations are advisable.

The primary site of Lasix® action—at the loop of Henle—distinguishes Lasix from other commonly used diuretics. The action at this site enables Lasix to produce a dilute urine,[4] which may be the basis for its relative freedom from electrolyte disturbances (hypokalemia).[3] When the edematous patient has been stabilized, excessive diuresis can usually be avoided by simple dosage adjustment. And, through regulation of urine volume by this dosag adjustment, you can control electrolyte excretion Careful medical supervision is required.

Wide dose-related effectiveness for precise control of diuretic response. The Lasix® effect is dose-related. A prompt diuresis usually ensues with a single dose of 20 to 80 mg, given preferably in the morning. Depending on the patient's response, a second dose may be administered 6 to 8 hours later. Clinical and laboratory observations are advisable when doses exceeding 80 mg/day are given for prolonged periods. When maintenance of the edema-free state is desired, dosage may be adjusted to as low as 20 mg.

(Please see the dosage and administration section on the last page of this advertisement.)

Highly effective/short acting. The effectiveness of Lasix® has been clearly established in hundreds of thousands of patients in a decade of clinical experience. Consequently, Lasix is the most selected diuretic agent today in the treatment of edemas associated with congestive heart failure

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get into each liter of
urine than with other commonly
used diuretics...

LASIX® (FUROSEMIDE)

the diuretic for both initial & maintenance therapy in cardiac edema

The onset of diuresis usually occurs within an hour and is usually complete within 6 to 8 hours; thus, patient inconvenience is minimized.

Useful in patients with renal impairment and severely depressed renal function. Unlike other commonly used diuretics, Lasix® can be useful in patients with renal impairment and severely depressed renal function. Even in the presence of renal insufficiency with depressed glomerular filtration, acidosis, alkalosis or hypoalbuminemia, Lasix has been found effective and well tolerated.[5] If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued.

(See next page for prescribing information.)

References: 1. Peltola, P.: Furosemide (Lasix®) as a diuretic, *Acta Medica Scandinavica, 177*:6, 1965. **2.** Mudge, G.H., in Goodman, L.S. and Gilman, A. (eds.), The Pharmacological Basis of Therapeutics, 4th ed., 1970, p. 852. **3.** Manner, R.J., Brechbill, D.O., and DeWitt, Karen: Prevalence of hypokalemia in diuretic therapy, *Clin. Med. 79*:19, November 1972. **4.** Schrier, R.W., *et al.*: Effect of furosemide on free water excretion in edematous patients with hyponatremia, *Kidney Int. 3*:30, 1973. **5.** Muth, R.G.: Diuretic response to furosemide in the presence of renal insufficiency, *J.A.M.A. 195*:1066, March 1966.

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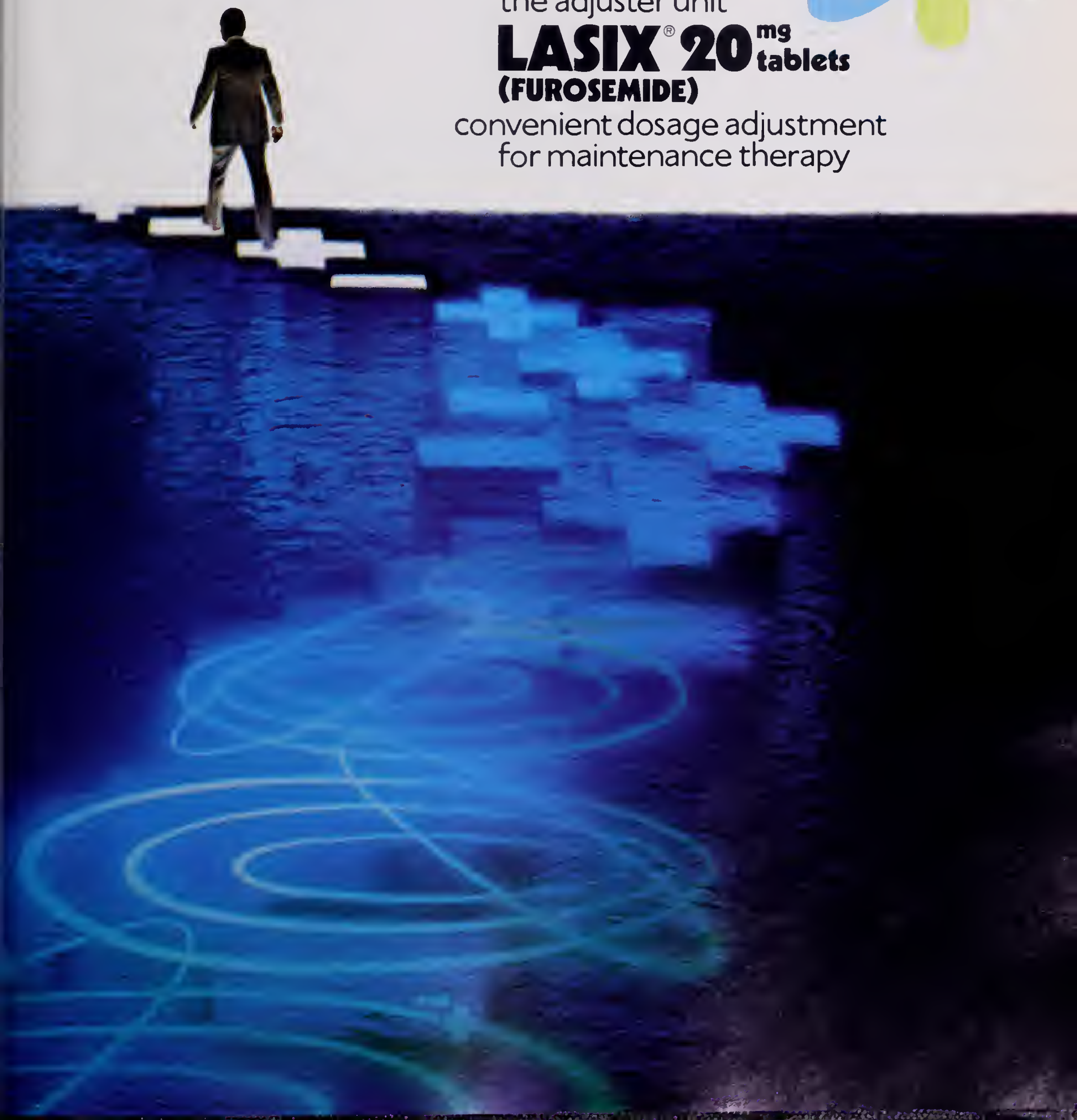

LASIX® 40mg and 20mg tablets. (FUROSEMIDE)

logical long-term diuretic therapy for cardiac edema

A brief summary of the Prescribing Information for

Lasix® (furosemide) Tablets 20 mg and 40 mg

WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO_2 and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperuricemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering curare or its derivatives to patients undergoing therapy with Lasix (furosemide), and it is advisable to discontinue Lasix (furosemide) for one week prior to any elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticaria and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, or diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (with purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported; however, relationship to the drug has not been established with certainty: sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinary frequency.

Dosage and Administration

ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as a single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individually determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day in those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged periods, careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent as soon as Lasix (furosemide) is added to the regimen to prevent excessive drop in blood pressure. As the blood pressure falls under the potentiating effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infants and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white, round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information

Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD_{50} of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD_{50} ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD_{50} of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often became dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of the drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in rats and dogs. In a one-year study in rats, renal tubular degeneration occurred, with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed calcification and scarring of the renal parenchyma at all doses above 10 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 17 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused maternal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate fetal lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of the renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.

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Course of Patients Discharged Early After Myocardial Infarction — A. D. N. Gelson et al (Cardiac Dept, City General Hosp, Stoke-on-Trent, England) Br Med J 1:1555-1557 (June 26) 1976.

Four hundred five men were admitted to hospital with acute myocardial infarction. Three hundred fifty-eight survived to the eighth day and 271 (76%) of them were then discharged. Two hundred fifty (92%) of these survived to six weeks following discharge. Seven of the 21 who died did so following readmission and 14 died as outpatients. Eight of these outpatient deaths occurred within a week of discharge. These patients may have survived with a longer period of inpatient care. Successful resuscitation with survival to six weeks was mainly achieved within the first 48 hours in hospital. Only three patients with cardiac arrest after 48 hours in hospital survived to six weeks following discharge, suggesting that a more prolonged period of hospital care would not have reduced these late deaths.

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■ **Relief of Nausea and Vomiting**—Antivert/25 can relieve the nausea and vomiting often associated with vertigo.*

■ **Dosage for Vertigo***—The usual adult dosage for Antivert/25 is one tablet t.i.d.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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(meclizine HCl) 25 mg. Tablets
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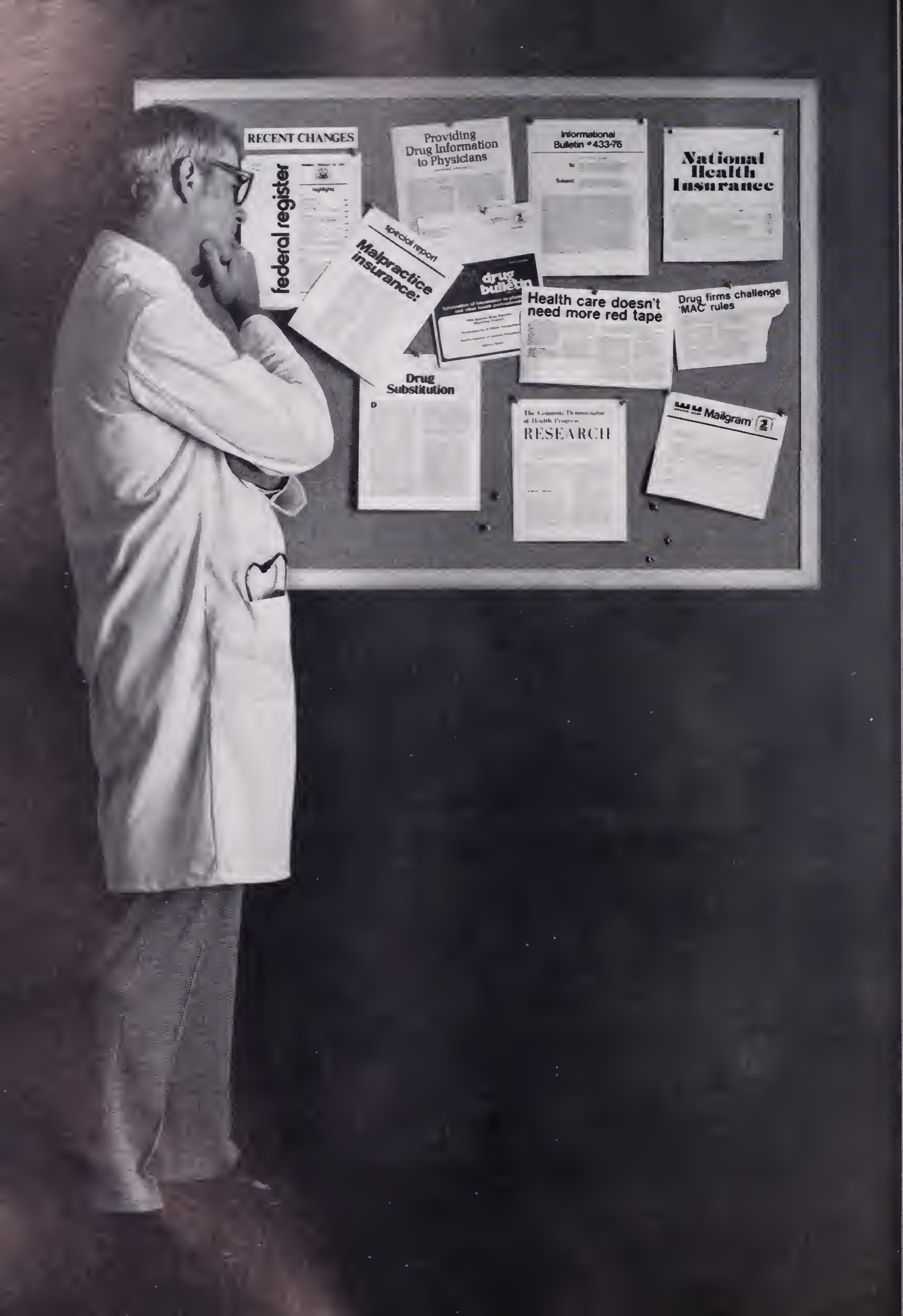
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THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent, generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than $1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.

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THE NEBRASKA MEDICAL JOURNAL

THE UNDECIDED

God must love the undecided, there are so many of them. In one issue, 45% voted yes, 45% voted no, and 10% were undecided.

If they were asked *why* they were undecided, I think they would vote 45% for one reason, 45% for another, and 10% would be undecided.

There will always be the undecided.

Some people cannot make up their minds.

Three children found a cat, and they couldn't figure out if it was a he cat or a she cat. So one of them said, I know how we can tell, let's vote. It came out one to one, and one undecided.

If might be more fun if we all said we are undecided. The polls would be more accurate, we wouldn't need them, and we would have to wait an hour to find out what happened. But then, we do now, anyway.

Doctors have to decide things all day long, and all night too, and quickly, and very important things, but we're not undecided.

We decide.

—F.C.

NOBODY LIVES FOREVER

She died, she did, she died of a broken rib is as bad rhyme as medicine. We die of whatever is planned for us, or of whatever susceptibility we are programmed with, even if it is a tendency to being hit by a truck. Studying your family tree will help, if you want that kind of help.

Where you will die is more important; just don't go near the place.

Now for when. My own formula used to be three fourths from wherever you are now to 80. I changed that to four fifths, or 80 percent, as our life span got longer. This was no help if you were 80, and so I have revised the formula.

You may live halfway from your present age to 100.

So if you want to know how old you will be when you die, subtract your age from 100, and add half of the difference to your present age.

Caesar said the best death is that which comes unexpectedly, and he got his wish the next day, but except for Shakespeare's putting those words in his mouth, I don't think he liked it.

But then nobody does.

—F.C.

IN CONCLUSION

Every November I cough and my hands get dry. I explain this by the low temperature, or the decreased humidity. Or it may be a cyclic biorhythm, so that coughing and dryness would strike me down then even if I lived in Argentina; I was born in November.

I have learned to use a hand lotion to take care of the chapping. And later, I found that if you buy an elephant figure and his tusks are pointing up, you have only to point him toward your front door and you will drive the disease away. Being a doctor, I knew this, and so one November I bought an elephant and I got well. I coughed the next year and I figured this elephant had done his job and he was used up, so I got another elephant; and now I have gone over to lions and dogs and giraffes. Friends have seen my elephants and, concluding that I round up animals, have got me into the collecting business, and I have them all, from antelopes through horses and rabbits all the way to a big zebra and a little zebra.

Right or wrong, I have concluded that lotion helps my hands and elephants stop the coughing, and there is as much logic one way as another. But both symptoms go away when I start only one form of treatment, and I am on the verge of concluding that hand lotion is good for the cough. It is dangerous to laugh, for rubbing mercury ointment into the skin is good for you-know-what, and that's not where you get you-know-what.

Conclusions are easy to jump to, but it is a good way to get hurt and they are as easily avoided. Is hand lotion good for bonchitis, and will my twelve elephants bring me everlasting life? We're not really sure; we once bled everybody and we thought sauerkraut was good for colds, we used to treat all sorts of diseases with things made out of roses, and a fungus from a chicken beak stops infection.

One patient refused to take polio vaccine because he had polio insurance, and I may not need flu shots because I have my elephants.

—F.C.

NOTES ON SMOKING

If you want to smoke, go ahead; it's not illegal yet. And if doctors, who should know what needs to be known about smoking and health, want to smoke, I suppose they are under no moral compunction to set an example for their patients. I do not smoke; I did once, but I don't.

I don't like people who smoke around me, especially when they come to my office to light up; I don't dislike it too much, but I wish they wouldn't. I think smoking in a restaurant is a little silly. You can't enjoy a good dinner while you smoke, and you annoy nonsmokers by subjecting them to fumes they consider unpleasant and deadly while you spoil their dinner.

But I have noticed this about smoking. I can just about always spot the smoker in the restaurant. I hear the cough and turn around and there he is, puffing on a cigarette and blowing some my way. More than half the time it is a she who is doing this; and the cough is so typical as to be diagnostic.

It is not so much that the smoker coughs; it is that the cougher smokes. He has been a smoker who thereby became a cougher; now he is an illogical cougher who knows what is making him cough and wants more of it, and blows some my way. I change tables.

—F.C.

THE MOVING FINGER

I was typing, and as I reached for a letter, I changed my mind and I decided not to hit the key. But the message did not get through to my finger in time, and I typed the letter I had originally wanted, but then decided against.

And for a very short while, when time seemed to stand still, I was fully aware of all this, and fascinated and frustrated, I watched my finger do what I had told it not to do; it hit the key and typed the letter I did not want.

Does it follow that what the finger will do must precede what it is a little later told it must not do? Is there a refractory period? Is canceling of an order possible?

Perhaps, when the finger begins to move, it cannot be called back, I could not do it.

—F.C.

The University of Nebraska Medical Center Laminar Air Flow Facility — Analysis of One Year's Experience.*

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THE use of a protected environment to diminish infectious complications in compromised hosts has become standard practice in many major medical centers. Sterile environments provide protection from infection in animals after chemotherapy[1] and irradiation,[2] and have been used in man in several clinical settings. These include aplastic anemia, neutropenia secondary to chemotherapy and/or marrow replacement, and severe combined immunodeficiency states.

Nebraska is fortunate to have three such facilities, one in Lincoln, and two at the University of Nebraska Medical Center (one pediatric and four adult units). The adult units at the University of Nebraska were established as a part of the Radiation Health Center for potential use after nuclear accidents. To maintain a trained and capable staff they have been utilized thus far for the treatment of patients with leukemia and solid tumors. The present report summarizes the first year's experience in the Radiation Health Center laminar air flow unit at the University of Nebraska Medical Center.

Results

Between July 1, 1974 and June 15, 1975, thirteen patients were admitted to the Radiation Health Center Laminar Air Flow (LAF) Unit (364 total patient days, and 20 total admissions). Three patients had multiple admissions. The age range was from 15 years to 76 years and the median age 31. There were seven men and six women with the following diagnoses: Acute lymphocytic leukemia (4), acute granulocytic leukemia (4), acute myelomonocytic leukemia (2), mesodermal sarcoma (1), undifferentiated mediastinal neoplasm (1), and metastatic breast carcinoma (1). The duration of illness before admission ranged from 2 days to 13 years with 7 being admitted at the time of diagnosis; 6 were admitted 1 to 20 months after diagnosis. Six patients with leukemia were admitted to the unit for the first time during the initial induction phase of therapy and 4 for reinduction.

All patients admitted to the unit had severe neutropenia or impending neutropenia secondary to chemotherapy or marrow replacement. The average neutrophil count at the time of admission was 1,000 cells per cu mm with a range of 0 to 6,200 cells per cu mm. Following admission the average daily neutrophil count was 800 cells per cu mm with counts less than 500 cells per cu mm during 54 percent of the patient days.

Bacteriological surveillance was maintained both in the LAF and on patients within the unit. Each surveillance comprised a total of 14 different surfaces which were swab cultured, and air fall out plates cultured in 9 locations, to assess the degree of bacterial contamination in the units. The units were cultured before occupancy and also an average of every 7 days after admission.

Organisms were grown in 26% (54/205) of all cultures from all sites in unoccupied rooms. Of these <2% (3/205) grew organisms considered to be pathogenic. After the units were occupied, 41% (103/254) of cultures were positive and 20% (50/254) grew pathogens. In contrast, all cultures taken from multiple sites of an unoccupied single bed hospital room outside the LAF facility were positive and 11 of 18 grew pathogenic organisms (61%).

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All species of cultured pathogenic organisms in the LAF unit were tabulated and are presented in Table 1. Forty-two percent of all organisms cultured in the unit after occupancy were identical to those cultured from patients before admission to the LAF unit. At no time was a new organism cultured from a patient after occupying the LAF unit which was present in the unit before the patient entered.

Cultures were obtained from the skin, throat, sputum, ears, urine, stool, mouth and nose of patients in the LAF unit. Of these, 50% (73/146) were positive and 34% (50/146) contained one or more pathogenic organisms. Although all patients were severely neutropenic while in the unit, there was only one infection related death, and as noted, no clinical infections were related to organisms cultured from the unit before occupation. No infections with Pneumocystis carinii were observed in the unit, although Pneumocystis is a common invader in the compromised host, and has been reported to occur in clusters in hospitalized immunologic deficient hosts.[3]

In 13 of 20 admissions, patients became febrile (>38°C) at some time during admission, and in five admissions fever was present at the time of admission. When present, febrile episodes occurred consistently 24-72 hours after the nadir of neutrophil counts, and abated as neutrophil counts returned to levels exceeding 500 per cu mm. Patients were treated empirically with antibiotics after the occurrence of fever. Once present, the mean duration of fever was 7.6 days.

In the six-month period subsequent to the compilation of the above data there were 8 additional admissions to the LAF unit, of which 2 represented readmissions for reinduction. The diagnostic entities represented were lymphoma (1), acute granulocytic leukemia (3), acute lymphocytic leukemia (2), aplastic anemia (1), and blast crisis of chronic granulocytic leukemia (1). Of these patients, one died of intracerebral hemorrhage, and one patient was discharged from the unit when it was felt that there was no further benefit to be had from further myelosuppressive combination chemotherapy. There were no deaths due to infectious complications in these 8 patients. In those patients the average length of stay was 28 days, with a range from 6 to 74 days. The average neutrophil count on admission was 600, and the average neutrophil count while in the unit was 300 with a range from less than 100 to 2,400 neutrophils. The average counts were determined on a total of 146

TABLE I

Source of Potential Pathogens Cultured After Occupancy of LAF Unit

	Cultured from Patients	Sink & Water Filter	Other Surfaces	Fallout Plates	Total
Non-hemolytic streptococcus	15	0	9	0	24
Alpha hemolytic streptococcus	21	3	14	17	55
Staphococcus aureus	6	0	1	0	7
Escherichia coli	10	0	0	0	10
Yeast species	6	0	0	0	6
Klebsiella	5	2	3	7	17
Hemophilis	5	0	0	0	5
Enterobacter	4	1	1	2	8
Proteus	2	0	0	0	2
Pseudomonas	1	0	3	3	7
Other gram-negative rods	1	0	2	1	4
Other gram-positive rods	0	0	2	0	2
Other gram-positive cocci	0	0	1	0	1
Diptheroids	0	0	1	0	1
Actinobacillus species	0	0	0	1	1
Candida	0	0	0	1	1
Total	76	6	37	32	151

white blood counts. Neutrophil counts were less than 500 on 82% of the patient days while in the unit, and 33% of patient days were associated with fever. None of the patients were febrile on admission to the unit, and antibiotics were given in relation to febrile episodes an average of 68% of patient days. As in the prior group, no complications from pneumocystis carinii or other opportunistic infections were observed.

Discussion

Because infectious complications are the major cause of death in patients with acute leukemia[4, 5] (up to 25% of patients may die of infection before an adequate trial of chemotherapy), new approaches to management have been sought in an effort to solve this vexing problem. These include white cell transfusions, use of newer combination antibiotic programs, and the use of LAF. It has been shown that many infections in the compromised host are acquired from the hospital environment and colonize the patient in the presence of neutropenia.[4] Inasmuch as resistance to antibiotics effective against Pseudomonas[6] has been documented, LAF isolation assumes greater importance in patient management.

Controlled prospective trials[7, 8] have shown that infectious complications in patients treated for acute leukemia in a LAF are reduced by 50%. The death rate in the LAF facility also was significantly reduced when patients in LAF were compared to control groups.[7] Accordingly, the 100 day survival rate was 30% greater when patients with acute leukemia were treated in the LAF, a statistically significant improvement.[7] Those studies, at the National Cancer Institute, confirmed earlier uncontrolled studies which indicated a reduction in infectious complications in patients with acute leukemia during treatment, when in LAF facilities.[9] The latter observations, at the M.D. Anderson Hospital in Houston, indicated that the duration of remission, and survival, was significantly longer when patients were treated in LAF.[9] Other observations, however, have indicated that the incidence of remission in patients with acute leukemia is not influenced by a protected environment.[7]

The present series of patients is not sufficient in size to permit a controlled study of remissions, but our experience in evaluating microbiologic sterility in the LAF (Table 1), and relative freedom from infection, confirms that published in the literature.[10, 11] Thus, Bodey[11] found that no floor samples were sterile in hospital rooms, compared to 70% sterility in LAF facilities, and the rate of deposition of organisms on settling plates was over fifty times greater in hospital rooms, compared to LAF units. The likelihood of recovery of virulent organisms in air samples also was much greater in hospital rooms than in LAF units (Pseudomonas 3.8 vs 0.3%, E. coli 7.5 vs 0%, Proteus 5.7 vs 0%.).

The Radiation Health Center LAF facility established its own 36 page manual of guidelines for patient and unit management, after consultation with several similar facilities throughout the United States. Patients and families are oriented to the facility prior to admission. Appropriate cultures are taken, and patients prepared to assure maximal freedom from pathogens upon entrance to the unit. Special food preparation is used to increase sterility, although the cost of food service in the LAF is approximately five times greater than other inpatient food costs. A wide variety of food is available, based primarily on cooked T.V. dinners, canned foods, juices, and other canned beverages. Fresh milk and ice cream cannot, however, be utilized. Gut sterilization with non-absorbable antibiotics has been utilized on a limited basis, but has been employed primarily in patient preparation prior to entrance into the LAF unit. Solution "C" (paromomycin, vancomycin and polymyxin B) employed by us is effective but expensive (approximately $15/day) and has almost uniformly produced diarrhea, limiting its usefulness. In addition, controlled studies[12] have suggested that survival and remission were improved when LAF isolation is employed without gut sterilization, although hemorrhagic deaths increased.

Patient acceptance, after the first few patients, has in general been excellent, and in large part is related to the skill and understanding of the nursing care team. All efforts are made to normalize the environment, which is confining, and which is better accepted by adults than adolescents. Radios, games, books, and other personal articles are sterilized and then brought into the room, and after several attempts cigarettes have been successfully sterilized by baking without taste loss for smokers.

Without question, these facilities are expensive, but are comparable in cost to other specialized units in tertiary care centers. Cost analysis, based on less than full occupancy, was found to be in excess of $200 per patient day. Initial acceptance of the LAF unit, and the potential gain for adult acute leukemia is greatest with the first remission. Admission to the LAF thus might be considered only for the first induction as is done in some other large centers.

Although therapeutic nihilism has been expressed concerning the vigorous management of acute leukemia,[13-15] especially in the elderly, such pessimism is not supported by our experience, or that of others.[16-18] The use of protected environments presently represents one modality to try to improve survival in acute leukemia, and possibly in other malignancies.

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Colonoscopic Polypectomy — Initial Experience

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PART II

Case No. 4: A 67 year old male was seen by his physician because of infrequent rectal bleeding. Proctoscopically, two small adenomas were seen and removed. A barium enema revealed a 1.5 cm polyp in the sigmoid colon with a questionable stalk. A total colonoscopy on 8/4/75 demonstrated 2 benign sessile adenomas in the ascending and transverse colon. A large polypoid lesion was found at 35 cm from the anal verge on a mucosal fold rather than on a stalk and appeared malignant. Biopsies confirmed the suspected carcinoma (Figure #5). An anterior resection of 19 cm of the sigmoid colon was carried out revealing an infiltrating, polypoid, mucin-producing grade III adenocarcinoma with infiltration of the submucosa (Figure #6).

Colonoscopy for evaluation of an x-ray-demonstrated polyp also led to the discovery of a separate adenocarcinoma not noted on a barium enema.

Case No. 5: A 58 year old caucasion male was hospitalized with a one year history of pain-food-relief pattern suggestive of peptic ulcer disease. For 6 weeks prior to admission he noted gross rectal bleeding; and for 5 days prior to admission he complained of right lower quadrant abdominal pain. His father had a history of carcinoma of the stomach. An upper GI series was negative, but a barium enema revealed a 1.5 cm polyp of the sigmoid colon. No other lesion was initially reported on the barium enema. Hepatic radioactive scintillation scan, the same day, revealed diffuse parenchymal

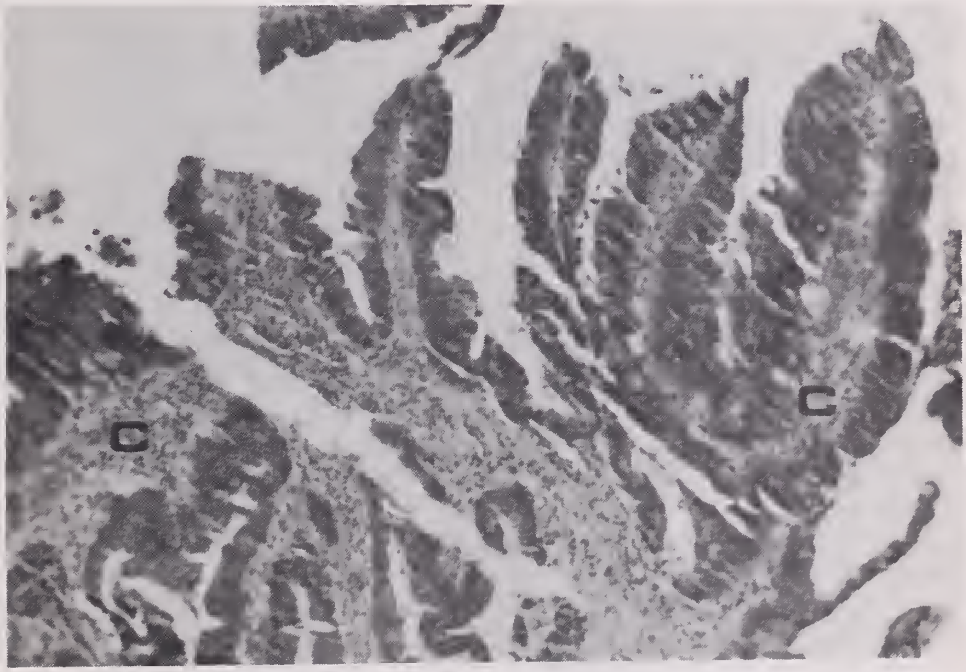

Figure 5. These orderly glands marginate with atypical hyperplastic and tortuous glands lined by pseudopalisading tall columnar epithelial cells, some of which are thrown up in small villi. (C = carcinoma)

replacement; and a liver biopsy confirmed a metastatic adenocarcinoma. In an attempt to further define a primary carcinoma source, a left colonoscopy was carried out. A 1.0 by 1.5 cm pedunculated polyp, which was tubular adenoma by biopsy, was discovered at 33 cm. More importantly, an infiltrating mass which was adenocarcinoma by biopsy was found at 20 cm (Figure #7). Retrospectively, deformity of the rectosigmoid on the barium

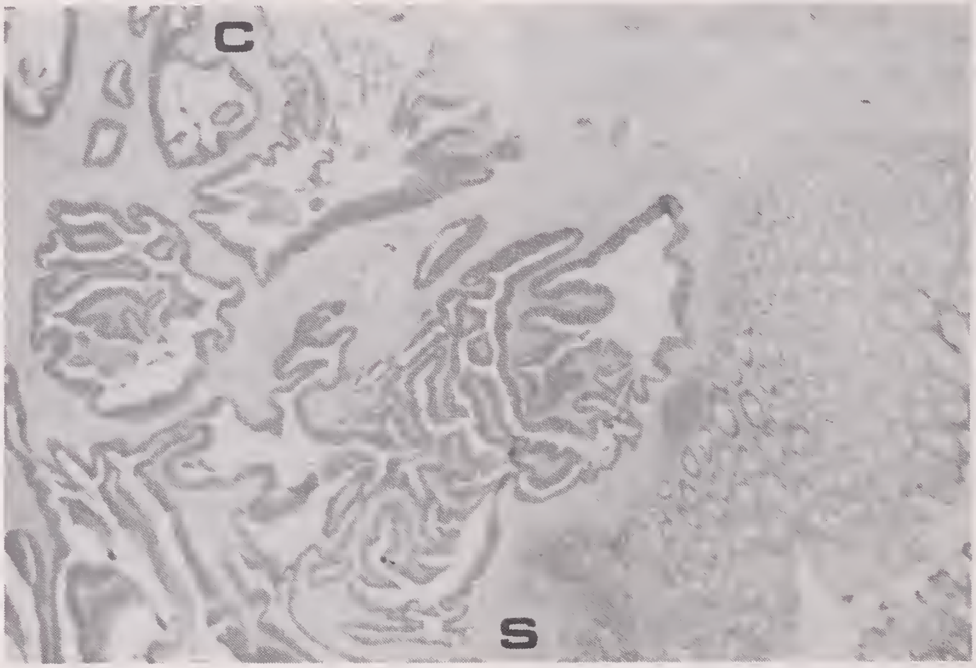

Figure 6. The tumor of the sigmoid colon appears of a polypoid nature although frank anaplasia is encountered with extension into the regional submucosa. (S = submucosa C = carcinoma)

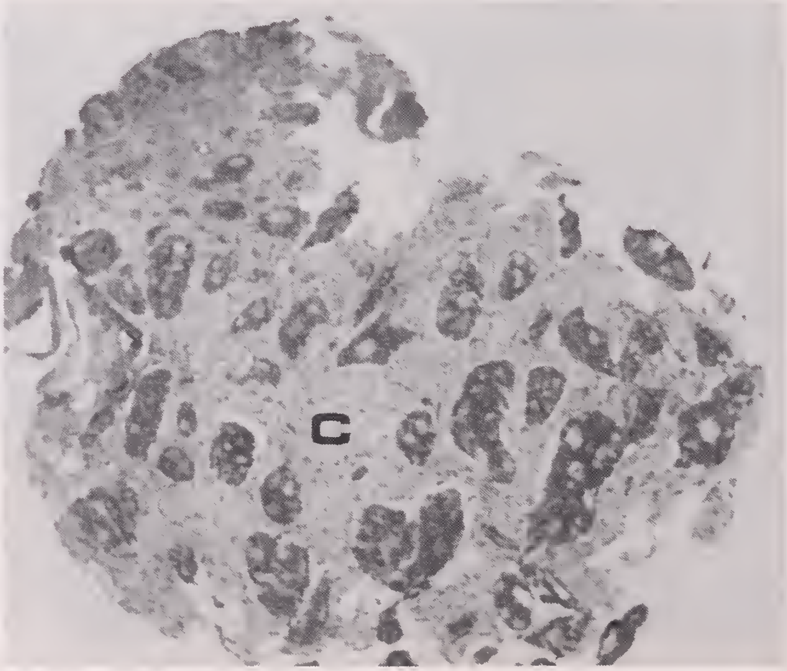

Figure 7. Adenocarcinoma is present within the desmoplastic stroma. (C = carcinoma)

enema x-ray was identified which was compatible with the carcinoma found by colonoscopy.

Of interest, the four malignant lesions removed (3 by colonoscopic polypectomy) appeared to have stalks by barium enema. Two villous adenomas containing carcinoma mimiced tubular adenomas by having stalks long enough to allow uncomplicated polypectomy by electrosnare method. The 2 villous adneomas with carcinoma discovered in this series were only 1.0 and 1.5 cm in maximum diameter, confirming that size alone is not a good criterion for deciding who should have a polypectomy. The two polypoid carcinomas were 1.1 and 1.4 cm in maximum diameter. (Table #7). By using size criteria alone, these lesions would have been suspected of having been malignant in 1:200 or 1:20 depending upon the experience of the examiner.[1,2]

Of the 22 polypoid lesions biopsied without colonoscopic polypectomy, most were small enough to be removed wholly by biopsy alone or destroyed with additional fulguration. Three biopsied polyps required surgical removal because of pathology found — a sessile villous adenoma and a polypoid carcinoma, or because of the size — an adenoma of 3 cm. Biopsy alone may not define the total pathological picture of a polyp. In our series, the pathological report of a biopsied lesion was misleading in three lesions which were subsequently removed surgically. Two biopsied polyps called tubular adenoma and one reported as a villous adenoma by biopsy were actually found to be mixed polyps after surgical removal.

COMPLICATIONS:

Two complications occurred in the 34 polypectomy subjects. A free perforation occurred following a polypectomy of a villous adenoma thought to be on a short stalk. Emergency surgical segmental colectomy was accomplished without further complication. A second confined perforation, discovered at the time of delayed elective surgical resection, presented with no signs or symptoms at the time of the polypectomy. Another surgical specimen had a 1.0 cm area of induration around the previous polypectomy site confirming the recent report that uncomplicated polypectomy may incite more local reaction than previously appreciated.[6]

TABLE #7

POLYP SIZE AND PATHOLOGY

Tubular adenoma	0.6cm to 2.5cm
Villous adenoma	2.5cm
Mixed adenoma	0.6cm to 2.8cm
Villous adenoma with Ca	1.0cm to 1.5cm
Carcinoma; polypoid	1.1cm to 1.4cm
Cavernous angioma	1.7cm

COMMENT:

The small number of cases presented here are but a ripple in the oceans of literature pertaining to colonic polyps and colonic cancer. Sprat et al isolated tubular adenomas from other polypoid lesions and argued against the causal relationship of distal tubular adenomas to cancer.[1] To the contrary, Morson has presented evidence favoring malignant degeneration of benign lesions.[2] He found an incidence of malignancy in 4.8 percent of 1880 tubular adenomas, a figure that cannot be ignored. His finding of malignancy in 40.7 percent of villous adenomas and 22.5 percent of intermediate (mixed) adenomas emphasizes the need to find and remove these types of lesions. Furthermore, he has reported a 56.6 percent incidence of cancer of the rectum spreading to the submucosa from benign lesions which have undergone malignant degeneration. In large series such as Wolff and Shinya's 1616 colonoscopic polypectomies, 6 polypoid adenocarcinomas, 7 villous adenomas with invasive carcinoma and even 5 tubular adenomas with invasive carcinoma were found.[5] In addition to this 3 percent incidence of invasive carcinoma, another 3 percent of noninvasive carcinoma was found in their total series. Although larger lesions do have a greater incidence of malignant degeneration, carcinoma has been found in lesions as small as 0.5 cm.[2] Furthermore, the presence of a stalk does not assure the benignancy of the lesion. In the present series, the finding of 2 pedunculated villous adenomas with malignant degeneration and two polypoid carcinomas limited to a 1.0 and 1.5 cm size indicates the need to reconsider the dictum of watchful waiting of pedunculated lesions above the reach of the proctosigmoidoscope. In the hands of experienced operators, colonoscopic polypectomies can be accomplished with a morbidity from hemorrhage of less than 2 percent and from perforation of less than 0.3 percent.[7] Only 2 deaths have been reported from perforation in over 25,000 collected cases for an incidence of 0.008 percent versus the 1.3 percent mortality rate and a 20 percent morbidity rate in one surgical series.[4] The avoidance of performing polypectomies on sessile lesions and simple biopsy and fulguration of smaller lesions can reduce the possibility of perforation and hemorrhage.

CONCLUSIONS:

Routine colonoscopy, complementing well performed barium enemas, should be carried out at least in those patients who have a high risk for carcinoma of the colon. These would include patients with a previous history of carcinoma of the colon, a history of recurrent rectal or colonic polyps, recurrent undefined distal GI bleeding, a family history of colonic polyposis, or a strong family history of colonic carcinoma. Miller reports that 40 percent of colonic lesions are missed by routine barium enemas.[8] It is anticipated that increased use of colonoscopy will identify more of these lesions and confirm the findings that: 1) 25 to 30 percent of polyps of the colon are multiple in spite of radiographic findings, and that 2) the incidence of concurrent carcinoma increases with multiple polyps.[9] The addition of colonoscopy to the performance of routine barium enemas and proctosigmoidoscopic examinations should longitudinally extend the success of Gilbertsen in reducing the incidence of carcinoma of the colon by prophylactic removal of benign polyps. This concept that the addition of colonoscopic polypectomy of appropriate lesions can discover early carcinoma in polyps is strengthened by this report of four malignant lesions in 34 patients (11.76 percent) with radiographically defined benign-appearing pedunculated polyps.

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New Concepts in Diagnosis and Treatment of Tuberculosis

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PART II

Current Trends in Treatment and Management

General principles and specifices of treatment and management as presented in 1973[2,3] still apply. Only a few changes in recommendations are necessary. In addition, comments on the role of rifampin and short course chemotherapy programs are included.

Prolonged hospitalization is no longer considered necessary and is not recommended unless the patient is severely ill or unreliable or other complicating factors are present. Several studies have shown that once chemotherapy has started and the population of organisms has been sharply reduced that a patient is no longer infectious to any significant degree in spite of occasional persistently positive sputum smears.[15] At two weeks 5% of the original number of organisms are present.[16] Contacts of sputum positive patients who have been discharged as early as two weeks following institution of chemotherapy demonstrate no increased incidence of subsequent infection.[17,18,19]

In 1973[3] it was recommended that after an adequate course of chemotherapy, follow-up should continue for three years; on a quarterly basis for the first year and every six months for the last two years. However since then results from several retrospective studies[20,21] indicate that a large majority of reactivation patients had either interrupted their chemotherapy or became inactive in the years when INH was not available. Of those who interrupted their chemotherapy adverse psychological influences, especially alcoholism, were prominent. Therefore, it is no longer thought necessary to give prolonged follow up to adequately treated patients. We feel that a sputum examination and a chest x-ray at six months post-termination of chemotherapy is sufficient.

There has been considerable discussion in the recent literature concerning the best way to utilize rifampin. Since rifampin has come into use it has been shown to be the most efficacious drug for the treatment of tuberculosis. In a study[22] rifampin (450-900 mg) alone produced 75% sputum culture negativity at 3 months compared to 9-16% for various other monotherapy regimens. When used in combination with one other drug the range of negativity was 82-97% depending on the combination. Comparable figures for triple therapy of INH + streptomycin + PAS are 66% at 3 months.

Because of the efficacy (faster conversion) of rifampin it is thought by some to be ideal first-line treatment drug.[23,24] They state in addition that it is well tolerated at usual doses (less than 2% have to stop the drug) and although quite expensive, savings should occur from decreased length of hospitalization. The drug has a low incidence of primary resistance, and no cross resistance of rifampin with other drugs occurs. However, others[25,26] would limit the indications for rifampin to:

(1) Retreatment regimens
(2) Substitute treatment on failing regimens
(3) Original treatment for difficult toxicity problems.

They argue that it is quite expensive ($50 per month), and liberal discharge policies (see above) invalidate benefits from earlier sputum conversion, and most importantly retreatment without rifampin does not have as good an outlook. We agree with this philosophy and recommend that the more traditional treatment regimens should be used at the present. If it is shown that shorter regimens with rifampin give favorable long term relapse rates or a non-toxic intermittent regimen is developed then it may be indicated as a first line treatment drug.

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A major advance in the treatment of tuberculosis would be the development of a drug regimen that would require a less prolonged period of administration as the standard triple therapy. Of course the relapse rates would have to be comparable. The practical consequences of short course chemotherapy would include decreasing demand on health resources, better acceptance by patients and less chronic drug toxicity.

Several studies are very promising. The current status of results of these studies was recently published.[27] The East African/British Medical Research Council study compared various 6 months regimens to standard therapy.[28] Short course streptomycin + INH + rifampin compared favorably to 18 months standard triple therapy with respect to the 6-29 month relapse rate (2% and 4% respectively). The rifampin and standard group are to be followed for five years. It is of interest that most of the relapses were between 6-12 months and with the two effective short course regimens no further relapses occurred between 18 and 30 months. A second East African study compared among other things short course streptomycin + INH + rifampin to INH + rifampin.[29] There was no statistical difference between the 6-12 months relapse rate (2% and 5% respectively). It was concluded that streptomycin is probably not necessary.

Several other studies have supported the results of the above two discussed.[27,30] It should be noted that the authors cautioned that in areas where high incidence of primary resistance exists conventional therapy is more likely to be successful. It appears that the rifampin regimen may indeed be ideal for short course chemotherapy. However, as alluded to above, until the 5 year results are available we do not recommend using it.

Adverse Effects

The reader is referred to the prior summary of adverse effects of chemotherapy given in 1973.[3] No updating is needed other than a few comments on INH-induced lupus syndromes and the high incidence of toxicity of high dose intermittent rifampin.

INH belongs to a group of drugs which alter soluble nucleo-protein, causing a high incidence (25.5% with INH) of positive ANA some of which progress to a lupus syndrome.[31,32] It is hypothesized this group of drugs provides an environmental stimulus to an under lying tendency to develop lupus.

Rifampin at the standard daily dose of 600 mg is relatively nontoxic. The major side effects with daily treatment are gastric intolerance, jaundice (more likely in alcoholics) and relative neutropneia. However, with intermittent high dose rifampin (eg. rifampin 1200 mg + INH 900 mg) two major immunologic reactions occur.[33,34] (1) Thrombocytopenia, which can lead to bleeding, (2) A febrile reaction (probably an immune complex disorder) consisting of temperatures 37.2 - 40.5 degrees C with malaise, rigors, myalgias with hypertension in some and one case of temporary renal failure. In one series,[34] 22% of patients were unable to continue therapy (16% febrile reaction, 6% thrombocytopenia). However in another series[35] with once weekly combinations with rifampin (30 mg/kg) no immune reactions developed. The authors hypothesized the discrepancy from other studies was due to the shorter period of rifampin administration. It would appear from the latter study that a nontoxic regimen could be formulated however until more studies bear this out we definitely do not recommend use of rifampin in this manner.

Conclusion

An article summarizing the treatment of tuberculosis in Nebraska in 1973 has been updated. New information has been presented regarding statistics, classification, skin testing, BCG vaccination, INH prophylaxis, treatment, and adverse effects of chemotherapy.

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Undergraduate Grade Point Average, Science Grade Point Average, and Science Hours as Predicators of Medical, Physical Therapy and Physician's Assistant Students Performance in Gross Anatomy

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Introduction

EACH of the professional schools at the University of Nebraska Medical Center has its own highly selective admissions procedure. These procedures are designed to admit students who not only have the academic abilities to complete their professional training, but also to ensure that they have the appropriate personal qualities. Consequently, there are differences between the schools in the academic requirements for admission.

On first entering professional school, students begin their didactic training. In the Department of Anatomy, for example, medical students (MSs), physical therapy students (PTs), and physician's assistant students (PAs) receive their basic anatomical training during the first two quarters of the academic year. Students in each of the three schools have their own anatomy program which consists of four individual courses: Gross Anatomy, Histology, Neuroanatomy, and Embryology, taught synchronously. In order to optimize the efficiency of teaching this large number of students and to minimize the faculty's heavy teaching load, each anatomy course draws upon a common core of anatomical teaching. This is especially true in the subject of Gross Anatomy where there is an extensive teaching overlap and because of this overlap, the MSs, PTs and PAs take the same monthly objective multiple choice examinations and quarterly laboratory practical examinations. The commonality of the Gross Anatomy objective examinations permitted us to make a comparison of student performance in the light of the differing admission criteria. Our objective was to see if our procedure of giving all the students the same examinations was potentially unfair to any particular group of students. Also, we wondered if, on the basis of undergraduate academic parameters, we could reliably identify students who might need additional help, before they started in the anatomy courses. We felt this information might also be of value to undergraduate student advisors who are preparing applicants for professional school.

Materials and Methods

1. Admission Requirements.

Details of the admission requirements of the School of Medicine, School of Physical Therapy and Physician's Assistant Program at the University of Nebraska Medical Center are outlined in detail in pamphlets available from the appropriate School at the Medical Center. Admission data for the entering classes of the 1973-1974 academic year were obtained through the appropriate administrative channels with the permission of the administrative authorities at the Medical Center and within the provisions of Chapter 5 of the By-laws of the Board of Regents, Section 5.6 and 5.6.1.

2. The Entering Classes of 1973.

The entering classes of 1973 consisted of 145 MSs graduating 1976, 16 PTs graduating 1975, and 16 PAs graduating 1975. There was essentially no difference between the PTs and the MSs as regards their mean entering overall grade point average, mean entering science grade point average, and mean entering science hours; consequently, we have subsequently amalgamated the data for these two groups of students. The PAs had the same mean entering grade point average as the MSs and the PTs; however, because of differences in the admissions requirements, this overall grade point average was often based on fewer total hours than the MSs or the PTs. The biggest difference was in the number of entering science hours of the PAs. This was, in almost all cases, lower than for the MSs and PTs because of differences in the admission requirements.

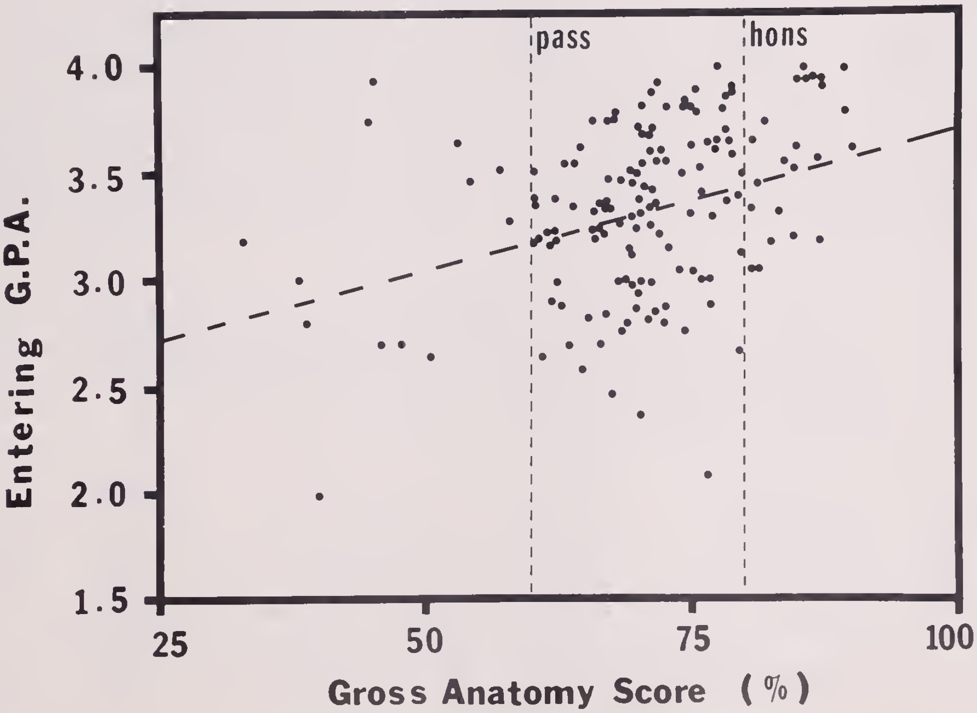
3. The Gross Anatomy Program.

As indicated previously, there were certain common elements in the medical, physical therapy, and physician's assistant Gross Anatomy courses. In all three courses, students were introduced to the terminology of anatomy, in particular, and medicine in general. The overall objectives of the Gross Anatomy program for all three groups of students were also common. Specifically, upon successful completion of Gross Anatomy, the student was able to: (1) Describe and identify the essential features of normal human anatomy at the tissue, organ and systems level, (2) Demonstrate with an acceptable degree of manual dexterity in the normal (living) subject, the position, extent, and functional integrity of organs and systems. (3) Identify the position and extent of normal structures in radiographs, contrast studies, air studies, and angiograms, and (4) State the anatomical basis of clinical procedures and pathological processes and seek an anatomical solution to clinical problems where one existed.

Throughout the 24 weeks of Gross Anatomy instruction, from July to December, particular emphasis was placed on "living anatomy"[1-3] as an introduction to physical diagnosis. The students learned to conduct a systematic anatomical evaluation of the normal individual. This portion of the program was integrated with Introduction to Clinical Medicine and served as a prerequisite to teaching the techniques of physical diagnosis. In addition to various lectures, all three groups of students were exposed to a wide variety of audio-visual material and other teaching aids,[4-7] which were used for self-study. Naturally, all three groups of students were exposed to laboratory dissection, although the physician's assistant students dissected only on a limited basis.

4. Evaluation of Performance in Gross Anatomy.

Figure 1



Student performance in gross anatomy was evaluated by a series of monthly (6 total) computer marked multiple choice examinations. These examinations employed a National Board type format throughout. Each examination had 30 gross anatomy questions, of which approximately 10 questions involved factual material in gross anatomy, approximately 10 required the solving of anatomical clinical problems, and approximately 10 tested the student's knowledge of living anatomy. Additionally, the students undertook two gross anatomy laboratory practical examinations, one at the end of each 12 week period. These examinations consisted of 50 laboratory identifications of labelled gross anatomy structures and radiographs. In addition to these, there were weekly tutorials and two living anatomy examinations. Since the latter two types of examinations were essentially subjective in nature, the data employed in this study relates only to the multiple choice examinations and laboratory practical examinations since these are of a totally objective nature.

5. Analysis of the Data.

The overall entering grade point average, the overall entering science grade point average and the total entering science hours for each of the groups of students was plotted graphically against their mean overall score in the gross anatomy course. The student groups are not identified separately, since there were no differences of note, with the exception of the PAs on the graph of entering science hours against overall anatomy score. Regression lines were fitted to each of the groups of data and correlation coefficients calculated for the MSs and PTs combined and, separately, for the PAs.

Results

Figure 1 shows a plot of entering undergraduate grade point average (GPA) against the mean overall gross anatomy score for the MSs, PTs and the PAs. It can be seen that 13 of 180 students failed to achieve a passing score of 60% on the objective gross anatomy examinations. This does not necessarily mean that these students failed the course because of additional evaluations which would possibly enable them to attain sufficient overall points to pass the course. Similarly, 25 out of 180 students gained a high enough score, i.e., grades above 80% , to merit honors. It can be seen that the range of entering GPA for those students failing the objective examinations is the same as the range of GPA for those students passing the objective examinations, and indeed, the mean GPA of the two groups is not very different. The regression line, Table 1, does not show a strong correlation (0.31) between entering GPA and overall gross anatomy score.

Figure 2 shows the entering undergraduate science GPA plotted against the mean overall gross anatomy score. As was the case with the overall GPA, the range of the entering science GPA of those failing the objective examinations is the same as that for those passing the objective examinations. Similarly, the mean entering science GPA of those failing is the same as for those passing. The regression line, Table 1, again showed a

TABLE I

Linear regression lines and correlation coefficients relating entering undergraduate grade point average (GPA), science grade point average (Sci GPA) and total science hours (TSH) to performance in gross anatomy, i.e. percentage gross anatomy score (GAS) for Medical (M.S.), Physical Therapy (P.T.) and Physician's Assistant (P.A.) students.

Parameter	Student Group	Regression Line	Correlation Coefficient
Overall GPA	M.S. & P.T.	GPA = 0.013 GAS + 2.43	0.307
	P.A.	GPA = 0.008 GAS + 2.48	0.379
Science GPA	M.S. & P.T.	Sci GPA = 0.017 GAS + 2.14	0.339
	P.A.	Sci GPA = 0.015 GAS + 2.09	0.404
Total Science Hours	M.S. & P.T.	TSH = -0.075 GAS + 62.5	-0.038
	P.A.	TSH = 0.312 GAS - 2.8	0.604

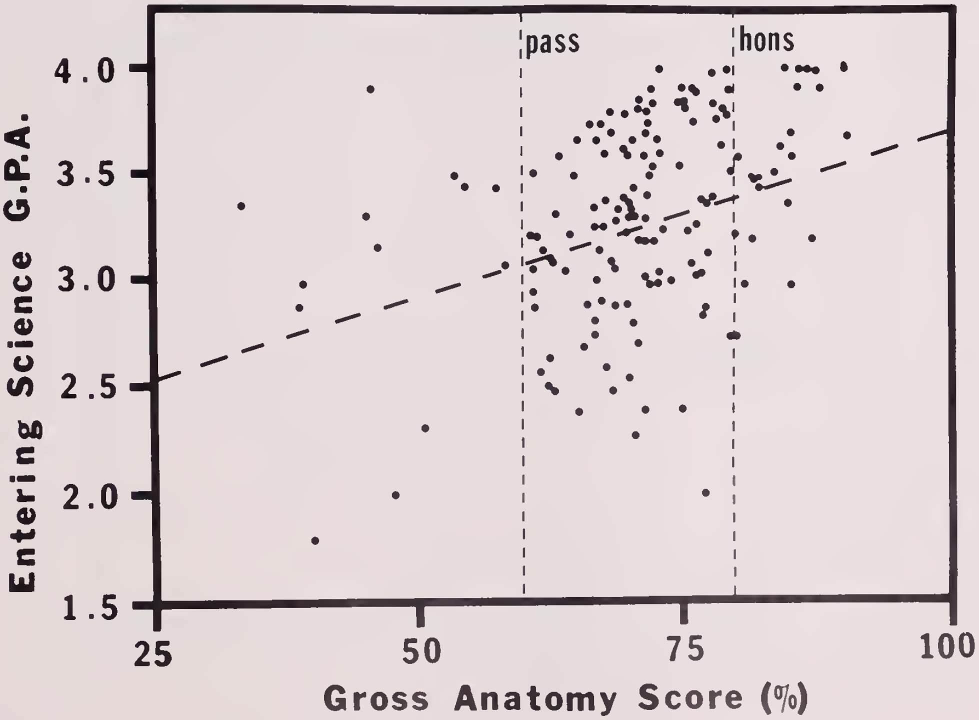
rather poor correlation coefficient (0.34) for this parameter.

Figure 3 shows the total entering science hours of the students, again plotted against the mean overall gross anatomy score. In this figure the data for the PAs (open circles) has been separated from that of the MSs and PTs because of the considerable differences in the admissions criteria which leads to a much lower number of entering science hours, in general, for the PAs. It can be seen that there is a very broad clustering of points of MSs and PTs and it is seen from Table 1 that there is essentially no correlation (correlation coefficient — 0.04) whatsoever for this data. The regression line is almost horizontal, i.e. there is apparently no relationship for MSs and PTs between their total entering science hours and their overall gross anatomy score. For the PAs the situation is somewhat different and it is seen that there is a better correlation, Table 1, of 0.60 for the students' performance in anatomy in relation to their total entering science hours. Even so, the range of the science hours for the PAs demonstrates that quite a number of students with a rather small number of science hours still pass the objective examinations. Conversely, a number of MSs and PTs with extensive science hours fail the objective examinations.

Discussion

The gross anatomy course at the University of Nebraska, is one of the major initial didactic courses undertaken by the medical, physical therapy and physician's assistant students. Performance of students is evaluated by objective examinations consisting of multiple choice questions employing the National Board format. Moffatt et al[8] has reported that performance in gross anatomy is closely paralleled by performance in the other basic science courses. Furthermore, we know that students in the medical class and physician's assistants class, who are required to take national board examinations, do extremely well in these examinations. This, then suggests that successful performance in the gross anatomy course, in general, would appear to lead to successful performance in all the other basic science courses and in the subsequent national examinations. It is, therefore, of considerable interest to determine which of those academic factors considered for admission, such as grade point average, science grade point average, or entering

Figure 2



science hours, are predictors of performance in gross anatomy. Additionally, we had hoped to use this information to identify those students entering the medical school who may have difficulty with gross anatomy so that we could provide them with the necessary additional assistance from the start of the course so that they would hopefully all pass the course.

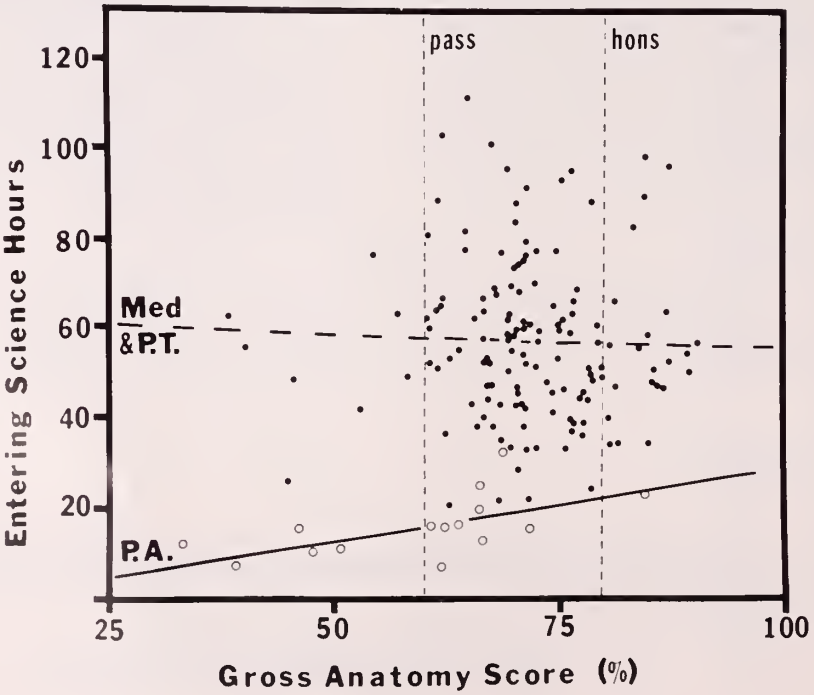
Unfortunately, the data in Figures 1, 2, and 3 and Table 1, demonstrates the correlation between each of the school's entering academic parameters and performance in gross anatomy is not very strong. Indeed, those students who fail the course, in general, have the same mean entering grade point average, mean science grade point average, and overall science hours as those who pass the course. The range of these parameters for the students failing the course is the same for those passing, so that it would appear that none of these parameters may be used as we had originally intended as reliable predicators of academic performance in gross anatomy. For the physician's assistants group, the data would suggest that those students with very small numbers of science hours may have a little more difficulty in passing the course than the students with rather more science hours. However, there are a number of students in the medical and physical therapy class who have large numbers of science hours, including up to the highest entering science hours for any one student (120), who still failed the objective examinations.

We know from other studies we have performed that there is a very high correlation between any one objective examination in gross anatomy and any other objective examination.[9] That is, it would appear that the initial multiple choice examination undertaken by the students one month into the course is a much better predicator of their overall performance in the course than is any of the undergraduate academic admissions criteria. Consequently, we now employ the approach of contacting all those students whose performance on the first objective examination is deficient. We then provide them with additional counseling and instructional help if it is felt to be required to ensure that they pass the course.

Summary

Medical students, physical therapy students and physician's assistant students undergraduate entering grade point average, science grade point average, and total science hours have been analyzed in light of the

Figure 3



students' performance in gross anatomy to determine if any were reliable predicators of students' performance in gross anatomy. The intent was to identify students starting the course who may need additional assistance. The results demonstrated that none of these undergraduate parameters are satisfactory predicators of this highly selected group of students' performance in gross anatomy. Rather it would appear that the students' performance in the first multiple choice objective examination of the course is much better in this regard. Consequently, we now employ the students' performance in that examination to identify any students who may need additional help.

Acknowledgements

We would like to thank the administration of the Medical Center for allowing this study to be undertaken. It is a pleasure to thank Mrs. Marsha Segebarth, Mr. G. Zajic and Mrs. Donna Nelson for their assistance with various phases of the data processing. Thanks are due to Miss Sue Zurek who typed the manuscript. Lastly, we would like to acknowledge the participation of the Freshman Medical, Physical Therapy, and Physician's Assistant classes of 1973-74.

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Summary of State of Nebraska Tuberculosis Program

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The 82nd Legislature, 2nd Session, 1972, by passing Legislative Bill 1492 closed the Nebraska Hospital for the Tuberculous at Kearney. This Bill also charged the State Health Department with the responsibility of in-patient care of communicable tuberculous persons.

A review of the case load of persons with active tuberculosis by calendar year since the closing of the tuberculosis hospital is as follows:

		1972			
		WHITE		OTHER	
AGE	TOTAL	MALE	FEMALE	MALE	FEMALE
TOTAL	101	65	15	15	6
Under 5 years	0	0	0	0	0
5-14 years	0	0	0	0	0
15-24 years	5	0	1	3	1
25-44 years	23	11	3	7	2
45-64 years	53	41	7	4	1
65 and over	20	13	4	1	2

		1973			
		WHITE		OTHER	
AGE	TOTAL	MALE	FEMALE	MALE	FEMALE
TOTAL	67	39	11	10	7
Under 5 years	2	1	0	0	1
5-14 years	1	0	1	0	0
15-24 years	5	1	1	2	1
25-44 years	10	6	1	1	2
45-64 years	33	21	5	5	2
65 and over	16	10	3	2	1

		1974			
		WHITE		OTHER	
AGE	TOTAL	MALE	FEMALE	MALE	FEMALE
TOTAL	41	24	7	5	5
Under 5 years	2	0	1	1	0
5-14 years	0	0	0	0	0
15-24 years	0	0	0	0	0
25-44 years	10	2	4	3	1
45-64 years	19	13	2	1	3
65 and over	8	7	0	0	1
Not stated	2	2	0	0	0

		1975			
		WHITE		OTHER	
AGE	TOTAL	MALE	FEMALE	MALE	FEMALE
TOTAL	40	26	10	2	2
Under 5 years	0	0	0	0	0
5-14 years	0	0	0	0	0
15-24 years	1	0	1	0	0
25-44 years	8	6	1	0	1
45-64 years	20	15	2	2	1
65 and over	10	4	6	0	0
Not Stated	1	1	0	0	0

From a bulletin issued by the Tuberculosis Control Division Bureau of State Services Center for Disease Control the citizens of the State of Nebraska can compare their state's progress towards the control of tuberculosis. 30,210 new cases of tuberculosis were reported for the United States during 1974. Case rates ranged from a high of 43.2 per 100,000 in one state to a low of 2.7 per 100,000 in Nebraska.

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*Director of Health

A Comparison of Hemodialysis and Transplantation in the Treatment of End-stage Renal Failure Secondary to Diabetic Nephropathy.

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THE increased morbidity and mortality of diabetics with end-stage renal failure treated with hemodialysis is well known. Diabetics may survive longer with transplantation.

A retrospective study of 23 patients with end-stage diabetic nephropathy treated from 1970 thru October of 1975 was undertaken.

11 patients were treated with hemodialysis only. Duration of dialysis was 16.6 months. 7 of the 11 patients died after a mean treatment of 16.6 months. 12 patients were transplanted. Their current survival is 17.7 months. Only 1 patient has died. 9 of the remaining 11 transplanted kidneys function well and 8 of 9 patients are employed. Both groups were comparable in age at onset and duration of diabetes, and age at onset of dialysis.

A comparison of survival converted to deaths per 1,000 months of treatment reveals a mortality eight times as great in the dialysis patients as in the transplanted patients.

We conclude that the treatment of choice for end-stage diabetic nephropathy is early transplantation and that hemodialysis should be used as a supportive means until a transplanted kidney is found.

The treatment of the diabetic patient with end-stage renal failure secondary to diabetic nephropathy has changed rapidly in the past few years. When hemodialysis was initially being offered, diabetics were frequently denied access to these services because of limitations of space and resources and the multisystem diseases in diabetics compared to patients with renal failure of other causes.[1,2] In recent years, because of increased efficiency of dialysis and the availability of more resources to patients with end-stage renal failure, the experience with diabetic patients on hemodialysis has increased.[3] Diabetic patients have been found to have a markedly increased morbidity and mortality during dialysis, with an overall survival of approximately 40% after two years.[1-3] This is much worse than the nondiabetics with end-stage renal failure who have a 70 to 80% two year survival on hemodialysis.[3] In view of this increased morbidity and mortality, transplantation has also been recently attempted in diabetics with end-stage renal failure.[4] The largest series, done at the University of Minnesota Hospitals, reveals a 50% five year survival for related kidney transplantations compared to 65% in a nondiabetic control population. Their corresponding figures for cadaver kidneys were 30% and 65%. Their overall total functional survival to date in their latest report was 67% total functional survival for related kidneys versus 78% for those transplanted in a matched control. Similar figures for the cadaver transplants were 55% and 67%.[4] Although it would appear that transplantation would be the treatment of choice in diabetic patients with end-stage renal failure, no other comparisons have been made between the survival of the diabetic patient treated with hemodialysis compared to the diabetic treated with transplantation. We report here our experience with a small group of juvenile diabetics with end-stage renal failure treated either with hemodialysis or transplantation in the last five years.

Materials and Methods

Prior to 1970, no diabetics were admitted to our end-stage renal program because of limited space and resources. Beginning in 1970, diabetics were admitted to our care in the chronic hemodialysis program. All patients were initially screened through a dialysis and transplantation committee consisting of the director of the hemodialysis unit, the director of the transplantation unit, a psychiatrist, a dietitian, a social worker, and a group of nurses from the renal unit. 22 patients with end-stage renal failure from diabetic nephropathy have been evaluated and treated. Clinical records on these patients were reviewed up to October of 1975. All hemodialysis patients were treated with in center or satellite unit hemodialysis. No home hemodialysis patients were included. The first transplantation was done in September of 1972. Since then a patient's selection for transplantation has depended upon the availability of a suitable living related donor or the immediate availability of a cadaver kidney.

TABLE I

Diabetics with Renal Failure

	Males(19)	Females(4)	Total(23)
Age at Onset Diabetes	18.0 (3-61)	6.8 (2-9)	17.3 (2-61)
Duration before Dialysis	21.8 (9-50)	19.3 (9-25)	20.4 (9-50)
Age at onset Dialysis	39.8 (25-70)	26.5 (18-34)	36.3 (18-70)
BUN/Cr at entry	125/12.4	118/15.1	124/12.7
Cr.Cl. at entry	5.6	3.2	5.5
Duration of survival to 10/75	17.3 (2.4-34.8)	17.4 (11.0-38.2)	17.3 (2.4-38.2)

Results

A total of 23 patients with end-stage renal failure from diabetes have been treated (Table I). Their mean age at onset of their diabetes was 17. On the average, 20 years had elapsed prior to the initiation of hemodialysis, and their age at this time averaged 36 years. There was a marked predominance of males. The patients were severely uremic at their entry into the program, with a serum creatinine averaging 13 and a mean creatinine clearance of 5.5 ml/minute. Other presenting clinical findings are noted in Table II. All groups were comparable in these findings except for the increased evidence of peripheral vascular disease in the deceased hemodialysis group. Presumably, the presence of significant vascular disease is an indicator of a patient's overall metabolic deterioration and predictive of their failure to survive on dialysis. The average survival in our patients with diabetic renal failure to date has been 17.3 months after the initiation of treatment.

A total of 11 patients were treated with hemodialysis only (Table III). They averaged somewhat older than the group as a whole in their age at onset of diabetes, the duration

TABLE II

Presenting Clinical Findings

	Angina	Myocardial infarction	Fluid overload	Neuropathy	Legally blind	Peripheral vascular disease	Blood pressure
Hemodialysis	2/11	2/11	9/11	5/11	2/11	7/11	173/102
Dead	2/7	2/7	7/7	4/7	2/7	6/7	190/102
Living	0/4	0/4	2/4	1/4	0/4	1/4	171/100
Transplanted	2/12	0/12	12/12	5/12	1/12	4/12	171/92
Total	4/23	2/23	21/23	10/23	3/23	11/23	176/98

of their diabetes before hemodialysis, and the age at the onset of hemodialysis. All of these patients were males. Their azotemia was approximately as severe as the overall group. Their survival to date averages 16.6 months. Of these 11 patients, 7 have died and their average duration of treatment was only 16.6 months. The longest survival was 29 months. 4 patients are still living and have been started on hemodialysis more recently than those who are dead. Their duration of dialysis is currently averaging 16.7 months since entry into the program. The overall mortality for our diabetics treated with dialysis is 64% with an average survival of only 16 months.

12 patients were treated with hemodialysis and renal transplantation (Table IV). These patients were younger at the age of onset of their diabetes, they became uremic sooner than the group as a whole and sooner than those patients treated with hemodialysis only and again there was a male predominance. Their uremia was of a similar degree at their entry into the program. A total of 13 transplantations have been done in these 12 patients. 6 cadaver and 7 living related donor kidneys were used. One patient died approximately five months after rejecting her living related kidney at three months. A second patient had an allograft rejection of his cadaver kidney 36 days after his initial transplantation and received a second cadaver kidney 62 days later. This kidney is now functioning normally. An additional patient had a florid allograft rejection but renal function was salvaged to a creatinine clearance of 18 ml/minute. This patient is currently 18 months post-transplantation, and has not had recurrent allograft rejection for the past 15 months. The remaining 8 kidneys are functioning well. The transplant group of patients has a current combined survival of 18.8 months since entry into the program. 8 of the 9 surviving patients are currently either employed, full time students, or housewives; only one patient is unemployed at this time. Diabetic control was challenging but possible to achieve in this group of patients during and immediately after transplantation; their post-transplant insulin requirements are only 56% more than the pretransplant requirements, and diabetic regulation became easier within 2-4 weeks after transplantation.

TABLE III

Diabetics Treated With Dialysis Only

	Living(4)	Dead(7)	Total(11)
Age at onset Diabetes (years)	32.0 (38-51)	18.4 (3-61)	25.0 (3-61)
Duration before dialysis (years)	27.0 (10-50)	23.5 (9-37)	26.0 (9-50)
Age at onset dialysis (years)	59.0 (34-62)	41.8 (31-70)	51.2 (31-70)
BUN/Cr at entry	105/11.6	158/14.3	139/13.3
Cr.Cl. at entry	7.0	3.0	4.7
Duration of dialysis (months)	16.7 (2.4-34.8)	16.6 (2.4-29.0)	16.6 (2.4-34.8)

A comparison of the survival in diabetics with renal failure treated by hemodialysis alone or hemodialysis plus transplantation once a suitable kidney becomes available is

TABLE IV

Diabetics Treated With Dialysis and Transplantation

	Male(8)	Female(4)	Total(12)
Age at onset diabetes (years)	10.4 (6-22)	6.8 (2-9)	9.5 (2-22)
Duration before dialysis (years)	18.3 (13-39)	19.3 (9-25)	17.9 (9-39)
Age at onset dialysis (years)	30.0 (26-45)	26.5 (18-34)	27.3 (18-45)
BUN/Cr at entry	102/11.0	118/15.1	107/12.2
Cr.Cl. at entry	7.1 (3-12)	3.2 (2-4)	6.3 (2-12)
Duration dialysis (months)	4.5 (0.4-11.8)	2.7 (0.3-4.2)	3.9 (0.3-11.8)
Time since transplant (months)	13.8 (4.3-19.4)	16.0 (6.8-34.8)	14.8 (4.3-34.8)
Combined survival (months)	17.7 (8.2-26.2)	17.7 (11.0-38.2)	17.7 (8.2-38.2)

seen in Table V. 7 deaths occurred in the hemodialysis group; only 1 death has occurred in the transplanted group. The total treatment months given to these patients is almost identical. If the death rate is converted to the number of deaths per 1,000 months of treatment in both groups, a striking difference can be seen between the survival of those patients treated with hemodialysis and transplantation. The mortality is approximately 8 times greater in the hemodialysis only group. The rehabilitation in the transplanted group has been most gratifying, and their overall quality of survival has been much better than the hemodialysis group.

Discussion

While this is a small group of patients, they were treated in a fairly uniform manner in both selection criteria and selection for transplantation. Our data seemed to indicate a much better survival in diabetic patients who received transplantation than those who received hemodialysis. The better survival in the transplanted patients cannot simply be explained by their younger age group. Other reports have indicated that survival in diabetic patients on hemodialysis in general is better in the patients beginning hemodialysis at an older age rather than a younger age when the cause of their renal disease is diabetes,[3] and this is also true for our patients treated with hemodialysis only.

Hemodialysis is associated with markedly accelerated vascular disease and retinopathy in diabetic patients.[5] They also experience rapid deterioration in their vision and accelerating retinopathy the year prior to the onset of hemodialysis. This is probably due to the super-imposition of hypertension, lipid disorders and other uremic changes upon the vascular changes of diabetes itself. Apparently these are somewhat ameliorated by transplantation since it removes the uremic stresses on the diabetic's blood vessels.

In view of the markedly improved survival in patients treated with transplantation, and because of the known acceleration of the vascular disease of diabetes immediately prior to and during hemodialysis, we have modified our approach to end-stage renal failure in the diabetic compared to the nondiabetic.

When at all possible we have urged our referring physicians who treat diabetics to monitor their renal function closely. When their creatinine clearance has dropped to approximately 20 ml/minute, we ask them to refer the patients to the renal center for evaluation for transplantation. At this time we can evaluate them before the uremia has accelerated their vasculopathy and retinopapthy and better determine their suitability for transplantation. In addition, the patients become acquainted with dialysis procedures, and the psychologic and physical traumas of emergency dialysis can be avoided. Early construction of an A-V fistula is also attempted. If more time can elapse to allow the fistula to mature before dialysis is initiated, the useful life of the fistula can be prolonged and the technical aspects of dialysis become easier. This is especially important in diabetics because of their arteriosclerosis. Also, if no shunt needs to be placed for emergency dialysis, an additional site for further fistulas can be preserved. Once their creatinine clearance has dropped to approximately 10 ml/minute (in contrast to end-stage renal failure of other causes when we usually tend to wait until the clearance is around 5 ml/minute) we begin the patient on hemodialysis and consider them for transplantation as soon as possible. By taking this

TABLE V

Survival in Diabetics with Renal Failure

Treatment	Patients	Deaths	Total treatment months	Deaths/ 1000 months
Dialysis	11	7	183	38.3
Combined group	12	1	212	4.6

approach to the evaluation and treatment of end-stage renal failure from diabetes, we hope to avoid the rapid acceleration of disease seen in these patients and hopefully to improve their long term outlook once they have received a transplanted kidney.

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Clinical Notes: Something Borrowed — Something Blue

JEROME BLEICHER, M.D.
M. CEGIELSKI, M.D.
JOSE SAPORTA, M.D.

RECENTLY a 78 year old white female patient was admitted to a local hospital because of dysphagia and regurgitation. During the process of her evaluation and examination, she was esophagoscoped and gastroscoped by a competent endoscopist. No malignant lesion could be identified, but there was radiographic and endoscopic evidence of achalasia with a dilated gullet. The patient also had, naturally, all the other degenerative ailments that are the companions of old age.

A few hours following her endoscopic examination it became evident that the patient suddenly had become acutely ill. She appeared to have either an intrathoracic or intraabdominal catastrophe, and the differential diagnosis was not immediately apparent. The chest x-rays remained constantly clear; the cardiogram did not indicate any change; there was neither evidence of pleural effusion nor mediastinitis. The blood count and chemistries were normal. With the passage of a few more hours, however, the abdomen became tender, the abdominal wall somewhat boardlike. A radiograph of the abdomen repeated at this time revealed free air in the abdomen with a separation of the diaphragm and liver by a layer of air.

At laparotomy through an upper midline incision the coelomic cavity was explored. With the incision into the peritoneum a small amount of gas and foul-smelling fluid was encountered. The first task was to mobilize the left lobe of the liver and reflect it to the right so as to examine the distal esophagus. Five centimeters of the esophagus could be pulled into the abdominal cavity after it had been freed. However, to our surprise there was no evidence of perforation. Attention was then focused on the proximal stomach. A search was made of the anterior wall and then, by dividing the gastrocolic ligament, the posterior wall was similarly studied. There was no obvious gross perforation.

At this point the anesthetist was instructed to insert a 10-ml ampule of methylene blue and saline through the Levin tube. The stomach and distal esophagus were again kneaded and scrutinized but no blue dye could be seen escaping. Now at the point of exasperation, the surgeon instructed the anesthetist to pump air into the stomach with a glass syringe via the Levin tube to inflate that organ. In the meantime the abdominal cavity was filled with warm saline solution. The stomach was again kneaded. And lo-and-behold, a very fine trickle of bubbles ascended through the saline into our incision. This maneuver produced the desired result. The perforation was found to be a tiny rupture on the posterior wall of the stomach very near the esophagogastric junction. Thus by opening the lesser sac even more widely and applying firm pressure on the esophagus and stomach, the single tiny perforation was isolated, visualized, and adequately closed.

Here is an instance of utilizing a technique borrowed from the local service station to identify a minute perforation that previously had evaded the closest examination. Although this maneuver is certainly not of earth-shaking importance, it is a worthwhile and helpful hint to file into some recess of the surgeon's cerebrum.

DYAZIDE®

Each capsule contains 50 mg. of Dyrenium® (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.

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MAKES SENSE FOR LONG-TERM CONTROL OF HYPERTENSION*

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

* WARNING
This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** When the fixed combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium-sparing action of its 'Dyrenium' component is warranted.

Contraindications: Further use in progressive renal or hepatic dysfunction; hyperkalemia. Preexisting elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs. Routine use of diuretics in otherwise healthy pregnancy.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in severely ill patients with urine volume less than one liter/day, the elderly or diabetics, with suspected or confirmed renal insufficiency. Periodic determinations of serum K$^+$ should be made. If hyperkalemia develops, substitute a thiazide alone, restrict K$^+$ intake. **The presence of a widened QRS complex or arrhythmia in association with hyperkalemia requires prompt additional therapy.** Thiazides are reported to cross the placental barrier and appear in breast milk; fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and other adverse reactions that have occurred in the adult may result. When used in pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus. Adequate information on use in children is not available.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics, or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K$^+$ frequently; both can cause K$^+$ retention and elevated serum K$^+$. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium® (triamterene, SK&F Co.), and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Do periodic blood studies in cirrhotics to check for nondrug-related variations in blood pictures, and in patients with folic acid depletion, since 'Dyrenium' may contribute to appearance of megaloblastosis. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

SK&F CO., Carolina, P.R. 00630
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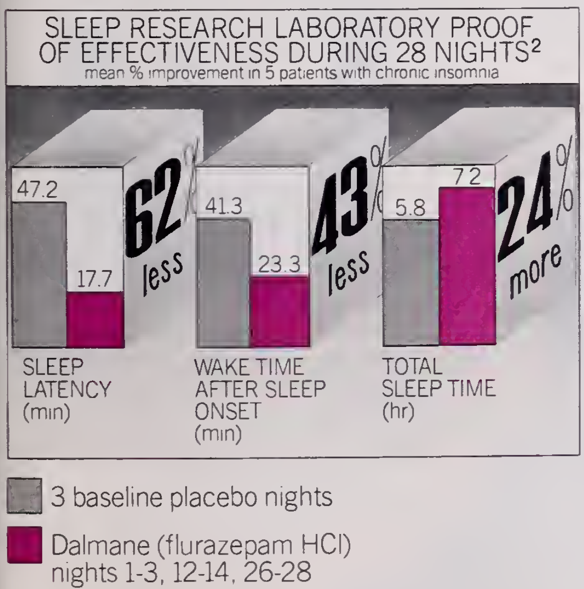
For insomnia that is a chronic problem...

Only Dalmane (flurazepam HCl) offers sleep laboratory proof of effectiveness for as long as 28 nights

Continued relief of insomnia in patients with chronic insomnia

Since insomnia is often transient and intermittent, the prolonged administration of a hypnotic is generally not necessary or recommended. But when insomnia is a chronic or recurring problem, continued effectiveness is as important as initial effectiveness. Results of a recently published sleep research laboratory study[1] demonstrated that, while pentobarbital lost effectiveness within two weeks, Dalmane maintained effectiveness for 28 consecutive nights. Similar 28-night results with Dalmane, displayed below, were obtained by a second sleep research group.[2] In previous studies,[3] both chloral hydrate and glutethimide began to lose effectiveness after several nights, while Dalmane maintained effectiveness throughout the 14 medication nights. Whether the problem is difficulty falling asleep, staying asleep or sleeping long enough, consider these results when selecting a sleep medication.



Patient benefits include relative safety, infrequent morning "hang-over"

Dalmane is well tolerated, seldom causing morning drowsiness or grogginess.[4] No increase in dosage is required for continued effectiveness from night to night.[1-3] Should Dalmane be used repeatedly, periodic blood counts and liver and kidney function tests should be performed. The usual adult dose is 30 mg *h.s.*, but 15 mg may suffice for some patients and is recommended as a starting dose for the elderly and debilitated to help preclude oversedation, dizziness or ataxia.

Continued relief of insomnia: One more good reason to specify

Dalmane®
(flurazepam HCl)

One 30-mg capsule *h.s.*— usual adult dosage (15 mg may suffice in some patients).
One 15-mg capsule *h.s.*— initial dosage for elderly or debilitated patients.

whenever a hypnotic is needed

ROCHE

Please see following page for a summary of product information.

Objective proof: continued insomnia relief without increasing dosage...[1,2]

Dalmane®

(flurazepam HCl) Ⓒ IV

Objectively proved in the sleep research laboratory...

during 28 consecutive nights of administration:

- ☐ effectiveness with a single 30-mg *h.s.* dose, maintained
- ☐ rapid sleep induction, maintained
- ☐ sleep for 7 to 8 hours, on average, maintained
- ☐ less time awake during the night, maintained

Before prescribing Dalmane (flurazepam HCl), please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving).

> *Usage in Pregnancy:* **Several studies of minor tranquilizers (chlordiazepoxide, diazepam, and meprobamate) suggest increased risk of congenital malformations during the first trimester of pregnancy. Dalmane, a benzodiazepine, has not been studied adequately to determine whether it may be associated with such an increased risk. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, limit initial dosage to 15 mg to preclude oversedation, dizziness and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

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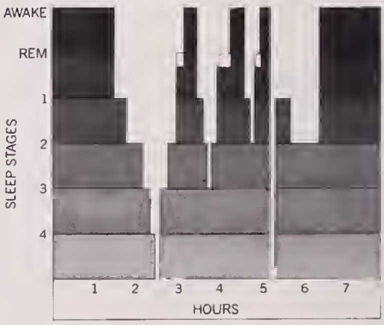
3. Kales A, *et al*: *Arch Gen Psychiatry 23*:226-232, Sep 1970
4. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ

For all common types of insomnia



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Down Memory Lane

1. I do not hesitate to resect a rib in a child.

2. I have heard many things about his tremendous fees, until I am sick and tried of it.

3. Perhaps the greatest abuse of alkali therapy is to be found in the treatment of simple hyperacidity and in the treatment of gastric or duodenal ulcer as practiced by layman or physician.

4. We believe, after a reasonable amount of experience, ethylene gas offers many advantages over nitrous oxide, that it can in many more cases entirely displace ether than can nitrous oxide and that it has a synergistic action with ether not found in nitrous oxide.

5. Toxemia is probably the most important complication of pregnancy, for which the physician should watch.

6. The anatomical structure and location of the pancreas has made it practically impossible to institute radical operative procedures.

7. In case of suit notify secretary at once.

8. The county society is all that the individual members make it and just what they make it.

9. Most of the papers should be by members of the local profession and the local profession should discuss them. The local doctor needs to be brought out of his shell.

10. While the death rate for all classes is about 11.9 per thousand, the death rate of physicians is about 17.22 per thousand. This is not due to contracting disease by contact with the sick as might be supposed, but is due to physical strain, exposure, fatigue and the worries and responsibilities of practice.

Nebraska State Medical Journal
December, 1926.

PRESIDENT'S PAGE

HAPPY HOLIDAYS

The holiday season is approaching. Although we all have experienced concern, anxiety, worry, and dissatisfaction with the role of medical practice in American life today and in our anticipation of the future, we tend to submerge these unpleasant thoughts in the spirit of the holidays.

To most of us, the season is characterized by the Christmas message and the celebration on December 25th.

> *"And it came to pass in those days, that there went out a decree from Caesar Augustus, that all the world should be taxed. And this taxing was first made when Cyrenius was governor of Syria. And all were to be taxed, every one into his own city. And Joseph also went up from Galilee, out of the city of Nazareth, into Judaea, unto the city of David, which is called Bethlehem;* [*because he was of the house and lineage of David:*] *to be taxed with Mary his espoused wife, being great with child. And so it was, that, while they were there, the days were accomplished that she should be delivered. And she brought forth her first-born son, and wrapped him in swaddling clothes, and laid him in a manger; because there was no room for them in the inn."*
>
> — *Holy Bible* (King James Version)

A number of us express our pleasure by celebrating The Feast of Lights or Hanukkah beginning December 17th.

> *"Commencing with the twenty-fifth day of the month Kislev there are eight days upon which there shall be neither mourning nor fasting. For albeit the Greeks entered the temple and defiled the oil, it was when the might of the Hasmonean overcame and vanquished them that, upon search, a single cruse of undefiled oil sealed by the High Priest was found. In it was oil enough for the needs of a solitary day. Then it was that a miracle was wrought. The oil in the cruse burned eight days."*
>
> — *Babylonian Talmud*
> (Solis-Cohen: *Hanukkah*)

Santa Claus, the exchanging of gifts, the festive atmosphere and the spirit of good will dominates our lives during these days. We are all united in giving thanks for the many blessings bestowed on us during the past year. We unite in friendship and love. We have no problems or worries or fears during these days. Again, we are at peace with each other and united in purpose in celebrating the events of this season and the end of another year.

It is this unity that is so gratifying — so pleasing. Could not the unity of the holiday season continue throughout the year for all of us as we seek a solution to the many problems facing medical practice?

To each of you, I take this opportunity to wish you a most

HAPPY AND BLESSED HOLIDAY SEASON.

Harlan L. Papenfuss, M.D.
President

The Auxiliary

THE 1976 LEADERSHIP CONFLUENCE

Three county Presidents-elect were invited to join President Harriette Francis and President-elect Dorothy Matson to represent you, the Auxiliary member, at the National confluence in Chicago October 10-13. They were Rosemary Northwall, Buffalo County, Helen Krause, Dodge County and Julie Hertzler, Greater Omaha. Good food, good fellowship and good experience aptly summarizes our stay. In this and the following issue of *The Nebraska Medical Journal* will be highlights of these delegates' reports on the seminars they attended.

VIOLENCE ON TV: IMPACT ON CHILDREN — Dorothy Matson and Julie Hertzler

Mrs. Peggy Charren, the President of ACT — Action For Children's TV — a very small woman, mighty in thought and energy, with a completely dedicated spirit, gave those of us attending this seminar a keen urge to do something about TV violence with its negative impact on children. Mrs. Charren is a mother of two children, and it was because of her concern for her own children that she decided to become involved in trying to improve TV for *all* children.

The AMA has endorsed this movement and will soon produce a booklet about ACT which can be distributed to all. A film, clearly showing the behavioral impact on children is available from AMA Auxiliary.

These are some statements I'd like to share. Children average 15 hours a week watching TV. Advertising for children's programs is many times misleading and may be harmful. The ACT group wishes to eliminate this advertising and make it public service programming.

Some positive suggestions in which we may all participate are: (1) Write to advertisers when you object to a TV program. They are the people who choose what programs they wish to show. (2) Don't just concentrate on violence. There are many other objectionable programs on TV for adults and children alike. (3) Join ACT — a citizen movement by writing and sending $15.00, or less, to ACT 46, Boston Street, Newtonville, Massachusetts 02160. By joining you will receive a quarterly newsletter which rates programs according to the amount of violent content and which identifies the sponsors of these programs.

The PTA has promoted this movement nationally. The Nebraska Auxiliaries can help them or initiate action locally on their own. *Let's do it. Now.*

DEVELOPING BASIC WRITING SKILLS — Helen Krause

This seminar, was given by Mrs. J. Paul Sauvageot, Editor, *MD's Wife* and Mrs. Joseph S. Shapiro, Editor, *Direct Line Newsletter*. It was designed to illustrate how the non-professional writer can develop basic writing skills to use in letters, news releases, committee reports and articles for newsletters.

Make your writing easy for you and your readers by following five simple steps. (1) Put an idea in one sentence. Assuming that you have done the prerequisite fact finding and legwork, write down the essence, the gist, the idea or theme of what you are going to say. The sentence doesn't need to be fancy, catchy, or brilliant. Keep it short. Avoid starting with questions.

2) Organize your thoughts. It is a good idea to think of what you would say if the person you are writing to were sitting across from you. You might say, in effect, "This is what I think would increase membership in the auxiliary. I can show you how to implement a program." There you have the logical organization of thought. Write what you mean as easily as if you were talking.

3) Make your writing simple. Start out with something to arouse interest. Don't quote from someone else if you have something to

say personally. Put action into your words through the use of verbs. "I rushed" instead of "I went."

4) Make your writing easy for the reader. Use terms your reader understands. Don't use unnecessary words. The reader may not take the time to hunt for what you are trying to say.

5) Cut and condense. Be economical with words. Be specific to be interesting. Reports are exactly that. Don't philosophize.

After your initial draft, put it away for a few days and then start correcting using the five simple steps above as a guide. Ask someone to read it for suggestions.

Your State Officers wish you a very Happy Holiday Season!

Harriette Francis
State President

Between Cases

How They Cured The Patient Of Gambling.

They cut the vega nerve. — J.D.

Px And Dx.

The patient has no evidence of any neurological deficits at the present time and I feel these are consistent with adhesive arachnoiditis.

O Surgeons.

But right now surgeons are a breed apart. They are tense, brusque, gruff.

Harris.

A clerihew.

Joseph Lister
According to his sister
Was not an alcoholic.
His vice was carbolic.

Anon.

Department Of Definitions.

Manuscript: something that is submitted in haste and returned at leisure.

Herford.

Inflation.

Social hour: 6 to 8.

Heard On TV.

A typical type.

Headline Of The Month.

Metric system inches along.

Anon.

The Report.

X-ray examination of the left forearm showed fractures of both knees with good alignment and apposition.

I Know The Kind.

That medicine would defoliate a wire brush.

Anon.

Quote Unquote.

I can't believe he was a real doctor. I thought they had to go to school forever.

Hinton: Rumble fish.

Well?

Therapist always looks like the rapist to me.

Words We Can Do Without.

Rescission, radiability, may I ask a question, interpretive, most certainly, vis-a-vis.

Section On Doctors' Automobiles.

How we are parked and bounded in a pale.

Shakespeare.

Department Of Cardiology.

There are worse occupations in this world than feeling a woman's pulse.

Sterne.

—F.C.

Picture Gallery

Nebraska Medical Association Fall Session,
September 30 - October 1 & 2, 1976

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Stephen R. Grenier, M.D.
P.O. Box 81009
Lincoln, Nebraska 68501

Carl J. Pergam, M.D.
622 Doctors Building
Omaha, Nebraska 68131

Stephen Woodman, M.D.
1310 West Charles
Grand Island, Nebraska 68801

WashingtoNotes

Money for students.

The three-year, $2 billion aid-for-medical education bill has been signed into law by President Ford who said it "virtually assures that no individual will be denied a medical education for financial reasons."

The Health Professions Education Assistance Act creates a new Health Professions Student Loan Guarantee Program and a Loan Insurance Fund through fiscal 1978.

It continues and expands current medical scholarship programs. In return, recipients will be required to serve in a health manpower shortage area for at least two years.

In a statement released with the signing, Ford said a government study had shown there were alarming signs that this country was facing two growing problems: Not enough doctors in rural and inner city areas; A continuing decline in the number of doctors practicing primary care because too many medical students are specializing instead of becoming general practitioners.

The bill requires medical schools receiving government capitation grants to provide annually an increasing percentage of residency positions for individuals in primary care specialties such as internal medicine, pediatrics, and family medicine.

Health maintenance organizations.

President Ford has also signed into law a bill designed to stimulate establishment and growth of HMOs. Thrust of the new law is to relax many previous restrictions on HMOs including the requirement that they must have "open enrollment" so that everyone could join regardless of health or financial circumstances.

The old ban on private physicians participating in an HMO on a part-time basis was lifted.

The new law permits:

HMOs to contract directly with individual practitioners or groups of health professionals that do not qualify as medical groups or individual practice associations provided that the amount of services so contracted for does not exceed 30 percent of the dollar value of the total physician compensation paid by a rural HMO, or 15 percent of such dollar value in the case of a non-rural HMO.

A previous requirement for medical groups that provide care for HMO enrollees is that the provision of such care must be the group's "principal professional activity." The bill provides that, for a three-year period, the HMO could provide services through medical groups whose members do not offer such services as their principal professional activity. After the three-year period, only medical groups whose members have a substantial responsibility for the delivery of services to HMO enrollees could be utilized. Substantial responsibility is defined as devoting at least 30 percent of the health professional's time to such enrollees.

Health cost.

Total spending on health care in this country is estimated to jump from the current $140 billion to $223.5 billion in five years, according to an actuarial study prepared for HEW.

The spending impact was compared of six major NHI plans — those of the AMA, the American Hospital Association (AHA), the Health Insurance Association of America (HIAA), the Labor-Kennedy forces, Sens. Russell Long (D-LA.) and Abraham Ribicoff (D-Conn.), and the Nixon Administration (CHIP).

An actuarial firm forecast that the Long-Ribicoff measure focusing on catastrophic expenses would add the least to overall health spending by fiscal 1980 if put into effect next year — $9.8 billion.

Next on the list was the plan by the health insurance companies — $11 billion, followed by CHIP, $11.3 billion; the AMA plan, $20.3 billion; the Labor-Kennedy Program, $24.8 billion; and the AHA plan, $25.1 billion.

The study said Long-Ribicoff, CHIP, and the HIAA plans "tend to use a variety of cost-sharing mechanisms, limit preventive services to children, and concentrate most of their additional spending on the poor, while the AMA, AHA, and Health Security (Kennedy-Labor) proposals tend to have little or no cost-sharing, provide preventive services to everyone, and increase insurance coverage broadly for the general population."

All six plans would add several billion dollars to the federal health care budget primarily to provide improved health services for the poor. But the range of some $10 billion (Long-Ribicoff) to $130 billion (Labor-Kennedy) in additional federal spending reflects largely the extent to which health insurance funds for the general population are funnelled through a federal health insurance mechanism or through private health insurance, according to the report.

Laetrile again.

The government's powers to move against quack remedies suffered a setback when the Federal Appeals Court in Denver recently refused to overturn a District Court decision allowing a cancer patient to buy and transport the questionable anti-cancer product, Laetrile.

The Appeals Court did not rule on the question of whether Laetrile was effective or whether the Food and Drug Administration had the right to bar it from the market. The FDA record on Laetrile was grossly inadequate, the Court said.

An Oklahoma City District Court judge had ruled earlier that Laetrile was effective and that the FDA was acting unconstitutionally in seeking to prohibit it.

New class at USUHS.

The charter class of 32 at the Uniformed Services University of the Health Sciences was welcomed at ceremonies in Washington, D.C. The five women and 27 men were selected from more than 1,700 applicants.

Authorized by Congress in 1972, the school will prepare physicians to practice medicine for the three military services and the Public Health Service. It has received provisional academic accreditation from the Liaison Committee on Medical Education.

Permanent medical school facilities are under construction at the National Naval Medical Center in Bethesda, MD, near the National Institutes of Health and the National Library of Medicine.

The University students are members of Uniformed Services paid at the level of a Second Lieutenant, Ensign, or Junior Assistant Health Officer in the Public Health Service. In return for their education, graduates will incur a minimum obligation of seven years of medical practice in one of the services.

Coming Meetings

CRIPPLED CHILDREN'S CLINICS
December 11 — North Platte, Elks Lodge

NEBRASKA ACADEMY OF FAMILY PHYSICIANS — Annual Scientific Session, March 24-25, 1977, Cornhusker Hotel, Lincoln, Nebraska.

NEBRASKA MEDICAL ASSOCIATION ANNUAL SESSION — May 1-4, 1977, Holiday Inn, Omaha, Nebraska.

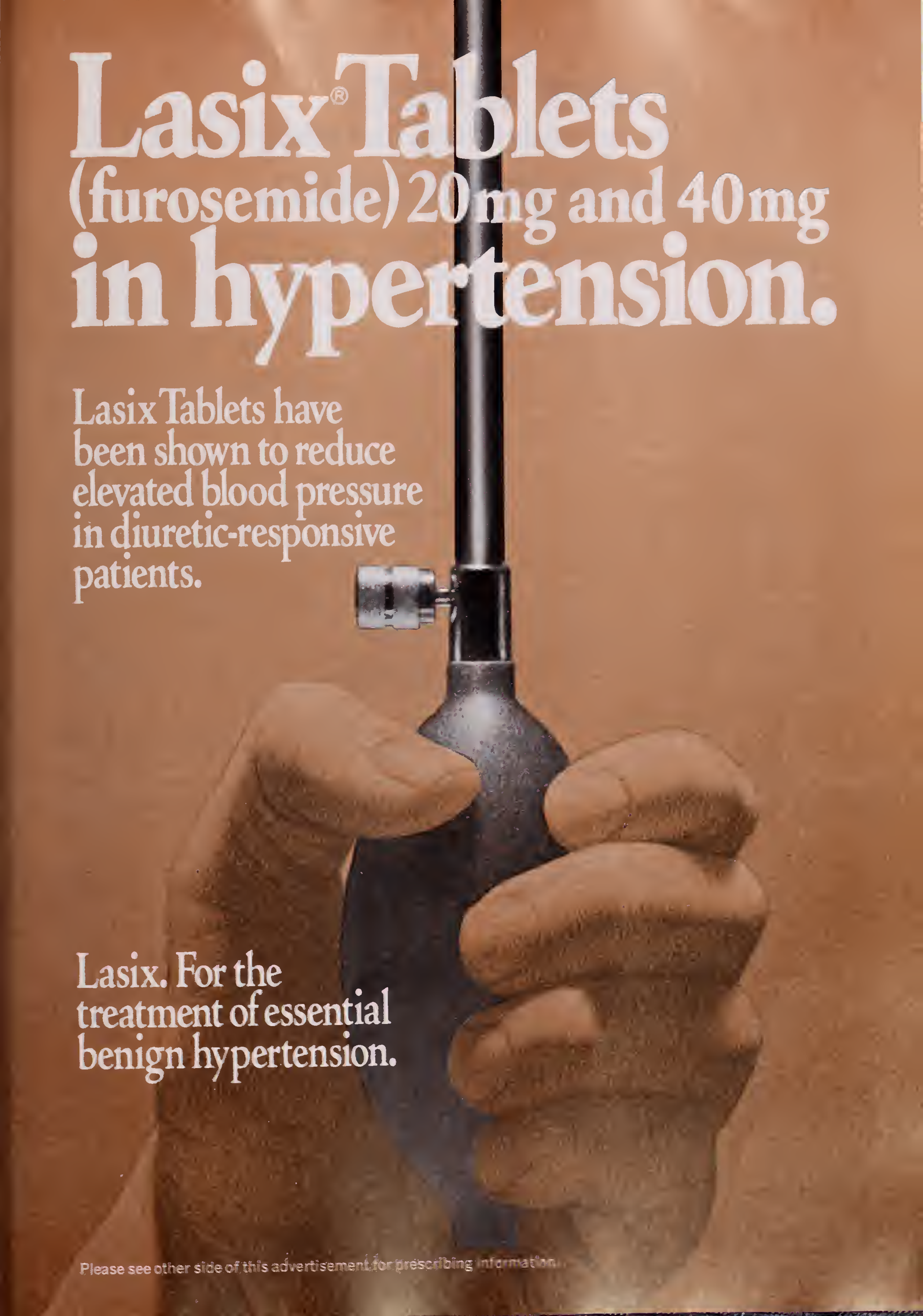
INDIANA CHAPTER ACEP-EDNA EMERGENCY MEDICINE SEMINAR will be held at the Airport Hilton Inn, Indianapolis, Indiana on May 11 through May 14, 1977. CME Credits Applied For: 20 hours; Co-sponsor: Indiana University School of Medicine. Fee: $50.00 - $100.00. Contact: David Gettle, M.D., 10005 Hillsdale, Carmel, Indiana 46032, 317-844-7105. Note: This seminar is in conjunction with the first day of Time Trials for the Indianapolis 500 Memorial Day Race.

AMERICAN MEDICAL ASSOCIATION — Annual Convention, June 18-23, 1977, San Francisco, California.

POSTGRADUATE EDUCATION FOR PEDIATRICIANS AND OBSTETRICIANS — The Maternal and Child Health Program of the University of California School of Public Health at Berkeley announces postgraduate programs for pediatricians and obstetricians in the field of Maternal and Child Health and Family Planning. Program areas available at the present time include nine-month programs in Maternal and Child Health, in the Health of the School-Age Children and Youth, and Day Care and the Preschool Child. Twenty-one month programs in Care of Handicapped Children and Comprehensive Health Care, and a thirty-three month program in Perinatology are also available. These programs all lead to the degree of Master of Public Health, and tax-exempt Fellowship support is available. Applications are now being accepted for the group entering September, 1977. For information, write to Helen M. Wallace, M.D., School of Public Health, University of California, Berkeley, California 94720.

NEBRASKA MEDICAL ASSOCIATION FALL SESSION — September 30 - October 1 & 2, 1977, Lincoln Hilton Hotel, Lincoln, Nebraska.

COLONOSCOPY TRAINING PROGRAM — The New York Society for Gastrointestinal Endoscopy supported by a Cancer Control Grant from the American Cancer Society, will now offer two week training programs in the techniques of fiberoptic colonoscopy for the detection and management of colonic neoplasm to qualified physicians and surgeons. The training program will be conducted at several institutions in New York City. Preference will be given to those physicians and surgeons who have had previous experience with fiberoptic endoscopy and who are from community where fiberoptic colonoscopy is not yet readily available. Please send curriculum vitae to: Paul Sherlock, M.D., Chief Gastroenterology Service, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, New York 10021.



Lasix® Tablets (furosemide) 20 mg and 40 mg in hypertension.

Lasix Tablets have been shown to reduce elevated blood pressure in diuretic-responsive patients.

Lasix. For the treatment of essential benign hypertension.

Please see other side of this advertisement for prescribing information.

Lasix® Tablets
(furosemide) 20 mg and 40 mg
in hypertension.

A brief summary of the Prescribing Information for

Lasix® (furosemide) Tablets 20 mg and 40 mg

WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO_2 and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperuricemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering curare or its derivatives to patients undergoing therapy with Lasix (furosemide), and it is advisable to discontinue Lasix (furosemide) for one week prior to any elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticaria and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, or diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (with purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported; however, relationship to the drug has not been established with certainty: sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinary frequency.

Dosage and Administration

ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as a single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individually determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day in those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged periods, careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent as soon as Lasix (furosemide) is added to the regimen to prevent excessive drop in blood pressure. As the blood pressure falls under the potentiating effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infants and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white, round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information

Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD_{50} of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD_{50} ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD_{50} of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often became dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of the drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in rats and dogs. In a one-year study in rats, renal tubular degeneration occurred, with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed calcification and scarring of the renal parenchyma at all doses above 10 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 17 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused maternal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate fetal lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of the renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.

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PHARMACEUTICALS INCORPORATED
SOMERVILLE, NEW JERSEY 08876

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The Letter Box

Dear Dr. Cole,

September 30 through October 2, we attended the fall session of the Nebraska Medical Association. During that time we sat in on sessions held by the Board of Councilors and House of Delegates as student representatives from the University of Nebraska Medical Center to the House.

We were impressed with the overall efficiency of the NMA in conducting matters of business and the system of checks and balances exhibited by the various sectors of the association. Especially impressive was the organization's willingness and innovativeness to adapt structurally in order to be more efficient and to allow more members active participation.

We further found the active role the NMA takes in national legislation affecting all doctors, such as that referring to national health programs, to be very important and commendable.

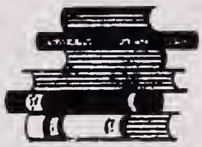
From our experience we gained knowledge of the active role a physician can take in helping create the type of environment in which he will practice and a sense of commitment to further action in the NMA.

Thank you.

Sincerely,

Glenda J. Benzel
James W. Billups

Books



The smell book; by Ruth Winter; 176 pages; hard cover $7.95; published 1976 by J. B. Lippincott Co., Philadelphia & New York.

The longer title of this book includes the words scents, sex, and society, and that is what it is all about. It has a great deal to say about sex and pheromones, pleasant and unpleasant odors, disease, animals, and the perfume industry.

The book is divided into 2 parts and again into 9 chapters. There is a 6-page index and a 12-page bibliography. The whole thing is well documented, and Miss Winter, who is a syndicated science columnist and the author of several books and magazine articles dealing with health and medicine, has done her research. It is a curious subject and a not-often-written-up one. It has been suggested that dogs be used to make medical diagnoses, she writes, and elsewhere, that Americans like "stinker" perfumes, but we knew that.

I read the whole thing, and I liked it.

—F.C.

REPORTS OF OFFICERS, DELEGATES AND COMMITTEES

FALL SESSION

September 30, October 1 and 2, 1976

(These reports appear as originally submitted. For the House of Delegates deliberations, possible changes, and final action, refer to the minutes which follow these reports.)

REMARKS BY THE PRESIDENT

Good morning! It is a beautiful morning and a wonderful time of the year. Personally, I would wish the day were cold, wet and dreary. Such would be more conducive to meeting indoors.

I take this opportunity to welcome you all to Lincoln. It is indeed a pleasure for me to greet you this morning. I trust that we will all have an enjoyable Saturday afternoon watching Big Red take Miami to the cleaners.

Your officers have not been sitting idle since the Annual Session. The reports in the Handbook indicate the numerous committee meetings that have taken place. We have attempted to keep abreast of developments at both the state and federal level. We have taken action or responded when apropos.

Our major concern has been in the field of medical liability. We are disappointed that we have not had a District Court opinion by Judge Samuel Van Pelt relative to the constitutionality of LB 434. We anticipate his decision any day. Although we would appreciate a favorable decision, we still feel that the law is constitutional in all aspects in that it is original legislation in the interest of the public and is not the sole remedy for the citizens of Nebraska. It is this principle that the Supreme Court of Nebraska has held to on several previous occasions in determining whether or not a given piece of legislation is constitutional. Unless the Supreme Court of Nebraska reverses itself, we have every reason to believe that they will find LB 434 constitutional in all aspects. Because of such, we urge each and every one of you to take advantage of the law at this time in the interest of your patients and yourself. There are many advantages in being covered by LB 434. Even if the law should be declared unconstitutional in all aspects, you will have virtually lost nothing. As of this time, approximately one-third of the physicians in active practice in Nebraska have complied with the provisions of the statute. It is of interest to note that 31 members of the House of Delegates have qualified under the statute while 43 have not as yet seen fit to so qualify. Relative to the Board of Councilors, five members have qualified under the act while seven have not. Of the Board of Directors, three have qualified and two have not. As an organization, we worked hard to obtain passage of this legislation. All of you played a vital role in this regard. Even though the waters have been "muddied" by the charge that certain aspects of the legislation are "constitutionally suspect," the bill did become law in Nebraska on July 10, 1976. We feel that a "show of strength" in having the majority of the physicians qualifying under the measure is important in meeting our opposition when the Legislature reconvenes in January, 1977. Please give this matter further consideration if you have not qualified under the act.

Because of the Attorney General's opinion that certain aspects of the law are "constitutionally suspect," because we are awaiting a Nebraska Supreme Court decision on the law and because a number of insurance advisors and agents have recommended nonparticipation by the physician at this time since premium commission would be lost, a number of physicians in Nebraska have not availed themselves of the opportunity to come under the law. The directions to come under the law are clear and simple. The directions are again given in the Report of the Policy Committee in the Handbook, Item #1. Keep in mind that you are not losing any money by complying with the law at this time. Should the law be declared unconstitutional, your payment to the Director of Insurance will be returned to you in full along with from 5% to 6% interest. Should the law be held fully constitutional, you and your patient will have benefited from all of the advantages of the law. In addition, if your medical liability coverage is provided by St. Paul Insurance Company, you have been assured of some rebate of any "double coverage" that you carried under the excess liability or umbrella policy. Consequently, you will actually come out ahead by qualifying under the law at the earliest possible date.

At the last Annual Session, a number of resolutions were passed by the House of Delegates. It was brought to my attention that some of the resolutions are not covered in any of the committee reports that you have in your Handbook. Briefly, therefore, I would like to bring you up-to-date as to the status of those resolutions referred to the President or the Policy Committee.

Resolution #2 introduced by the Greater Omaha Medical Society concerned "Utilization of relative value study." On the advice of legal counsel, the Policy Committee withdrew its support of the relative value study in June, 1976. You were all apprised of this action and the reasons for such. Resolution #3 introduced by the Greater Omaha Medical Society concerned "professional liability counteraction." An Ad-Hoc Legal Committee was appointed to cope with this matter and the report is before you in the Handbook.

Resolution #4 introduced by the Adams County Medical Society concerned "new claims statements by the Nebraska Department of Public Welfare." Resolution #10 introduced by the Lancaster County Medical Society concerned "completion of recertification forms." Resolution #11 introduced by the Lancaster County Medical Society concerned "state utilization review." On June 4, 1976, an Ad-Hoc Liaison Committee With State Governmental Agencies was appointed, Doctor Warren G. Bosley, Chairman. When one is working with governmental agencies, communication and correspondence may be voluminous while resolution of the problem or problems proceeds at a "snail's pace." In other words, the matter is still under consideration. Resolution #14 introduced by the Lancaster County Medical Society concerned a "health care coalition." The Policy Committee considered this matter. Some ten years ago, such a coalition referred to as the "Inter-Professional Council" was in existence. This Council consisted of medicine, pharmacy, dentistry, nursing and veterinary medicine. The Council was formed on the recommendation of the Nebraska Medical Association. It failed to get off the ground and died. Preliminary exploration for the re-establishment of a "health care coalition" has not resulted in significant interest. However, the Policy Committee will continue to pursue the intent of the resolution and report developments at the Annual Session.

Again, it has been my privilege to appear before you this morning. I encourage each of you to appear before one or more of the Reference Committees and express your views. I hope that you will all find the session enjoyable and most worthwhile.

Harlan L. Papenfuss, M.D.
President

REPORT OF THE BOARD OF DIRECTORS

Charles Ashby, M.D., Geneva, Chairman; Robert Benthack, M.D., Wayne; Dwight W. Burney, Jr., M.D., Omaha; Robert J. Morgan, M.D., Alliance; Russell L. Gorthey, M.D., Lincoln.

The Association at this juncture of the operating year, continues to maintain a stable financial position. There have been no changes in our investment portfolio, however it has reflected the improvement of the market since our last report. All funds received by the Association are placed in daily interest accounts thereby providing additional working capital through interest received.

Expenses continue to be incurred through activity in the area of professional liability. As you are aware, LB 434 is currently in the Court starting at the District level and finally to the State Supreme Court. Expenses of this important activity are being assessed to the fund as established by the House of Delegates. We plan to report to the House at the 1977 Annual Session.

The Board received and approved an increase in printing costs of the Nebraska Medical Journal effective July 1, 1976. Other operating costs are increasing and the Board will review these matters later this year in determining the financial needs of the Association for 1977. The results of our review will be reported at the 1977 Annual Session.

The board welcomes and appreciates any comments the House has regarding financial activities of the Association.

Respectfully submitted,
CHARLES ASHBY, M.D.
Chairman

REPORT OF DELEGATE TO AMERICAN MEDICAL ASSOCIATION, ANNUAL SESSION

The annual session of the American Medical Association was held in Dallas, Texas June 27th through July 1, 1976. The tone of the convention was set by President Max Parrott in his farewell address when he said, "I am saying goodbye at a time when the American Medical Association and our profession are doing more for the American people than ever before and yet are being attacked more savagely and more concertedly than ever before in the name of the people." "How do we respond when we are the targets of an ambush and shoot-out at the OK corral against the faceless men of government. We have no special bullets but we do have great ammunition — the Truth."

254 of the 256 Delegates to the AMA were seated.

The House of Delegates considered 66 reports and 146 resolutions. Highlights of the actions of the House of Delegates are as follows:

1. Resolution 47, submitted by the Nebraska delegation urging opposition to the enactment of S3205, the Medicare-Medicaid Administration and Reimbursement Reform Act or "Talmadge Bill" and a court challenge of same should it become law was considered with three similar resolutions. Substitute Resolution 18 was adopted in lieu of these resolutions and was referred to the Board of Trustees for appropriate action and a statement of policy was also adopted.

   RESOLVED, that S. 3205 in its present form should not be adopted by the Congress, and that the American Medical Association strive to remove or amend those sections of the bill which are not in the interest of the public and the profession, and to support those provisions which it finds are constructive and beneficial; and be it further

   RESOLVED, that the Board of Trustees take appropriate safeguards to protect the interests of the public and the profession from unwarranted and unjustified intrusions in the provision of high quality health care in government programs.

   The American Medical Association condemns and deplores all acts of fraud and wrongdoing, including in particular any wrongful acts as recently reported in the Medicaid and Medicare programs. We urge that responsible government agencies proceed with all due speed in the prosecution under the provisions of due legal process of all who are charged with guilt of fraudulent misconduct. We will continue to offer our cooperation and assistance in bringing to an end such activities.

2. Resolution 48 submitted by the Nebraska delegation requested a reaffirmation of the AMA policy of aiding and assisting interns and residents when they are in conflict with hospitals and that this assistance be rendered on merit in the form of advice, counsel and even financial support, but that it not include endorsement by the American Medical Association of collective bargaining through trade unionism by the American Medical Association.

   This resolution was referred to the Board of Trustees for study and report.

3. Report C of the Council on Medical Service recommended that the specialties of Family Practice, Internal Medicine, Pediatrics, and OB-GYN together with general practice be designated as major providers of primary care. This report was not adopted due in part to the persuasive argument of Nebraska Senior Delegate, John R. Schenken, M.D., who pointed out to the House that a physician in almost any specialty could be the physician of first contact for a patient and thus serve as the primary physician.

4. Report K of the Council on Medical Service indicated that this Council is studying the results of "second opinion" (consultation in elective surgery) programs currently underway and cautioned against the further proliferation of these programs before the results of these studies have been completed and analyzed. The House reaffirmed its present policy that patients may seek consultation at any time but should not be required to seek or decline such a second opinion.

5. Although there appears to be growing opposition to the AMA's Medicredit Bill, the House reaffirmed its support for HR 6222, but referred California and Florida Resolutions #19 and #35, which called on the AMA to support a program for Free Standing National Catastrophic Health Insurance utilizing the

private insurance industry, to the Board of Trustees for further study.

6. Report U of the Board of Trustees dealt with the AMA's participation in the Medical Liability Commission. This report was received and the Board of Trustees was given authority to withdraw from this commission if it persists in engaging in lobbying or political action activities which go beyond the original purpose of the Liability Commission which was to serve as a fact finding agency in the medical liability area.
7. The House deferred final approval to the constitutional change which abolished the office of Vice President of the AMA to the 1976 Clinical Convention.
8. Resolution #80 as amended was adopted and referred to the Board of Trustees as follows:

   > RESOLVED, that the American Medical Association identify all necessary and desirable amendments to the PSRO law, that they be listed and widely publicized in official AMA publications, and that progress reports regarding each proposed amendment be publicized at frequent intervals during the next two years.

   (At the Clinical Session of the AMA in Anehiem, 18 amendments to the PSRO legislation were presented in Report EE of the Board of Trustees. To date, not one of these amendments has been adopted.)
9. The House adopted substitute Resolution #52 which commended the Board of Trustees for its previous actions regarding the Utilization Review Regulations and instructed the Board to take "appropriate action" including legal action if necessary to insure against Federal intervention into the physician-patient relationship when the final U.R. Regulations are published.
10. The House gave final approval to reorganization of the AMA Councils making all, but the Judicial Council and the Council on Legislation, Councils accountable to the House of Delegates through the Board of Trustees and members of these House Councils are elected by the members of the House. Members of the Judicial Council are appointed by the President with confirmation by the House and members of the Council on Legislation are appointed by the Board of Trustees.
11. Resolution #144 from Nebraska, requesting the Board of Trustees to update AMA policy regarding physicians offices in close proximity to and owned or controlled by hospitals, was adopted.

John H. Budd, M.D., Family Practitioner from Cleveland, Ohio, was elected President Elect of the AMA, and John J. Coury, M.D. of Michigan and Hubert A. Ritter, M.D. of Missouri were elected as new members of the Board of Trustees, joining Frank J. Jirka, M.D. of Illinois and Lowell H. Steen, M.D. of Indiana, who were reelected to the Board.

Respectfully submitted,
C. J. CORNELIUS, JR., M.D.
Delegate to the AMA

REPORT OF EDITOR, NEBRASKA MEDICAL JOURNAL

Volume 60 of the Nebraska Medical Journal was published in 1975. It contains 69 original articles written by 86 different authors; the average number of articles per issue was 5.75. There were 68 editorials.

Letters were again received complimenting the Journal on the excellence of its articles and editorials; there were published in The Letter Box.

There is no shortage of articles, and the quality of manuscripts submitted to the Journal is high and continues to rise.

Articles were published concerning all aspects of modern medicine and surgery, including all specialties. Manuscripts were printed dealing with social and economic aspects of medicine, in addition to the science of the profession.

Old and some newly established sections have been continued, including The President's Page, The Auxiliary, Committee Reports, The Picture Gallery, Down Memory Lane, Between Cases, Welcome New Members, In Memoriam, WashingtoNotes, Books, and Medicinews.

It was a particularly good year for the Journal. The Editor attended meetings of our national organization, where he serves on two national committees. He also attended Student Research Day at the University of Nebraska, where he was an Honorary Chairman.

Respectfully submitted,
FRANK COLE, M.D.
Editor

REPORT OF THE EXECUTIVE SECRETARY

Another busy and productive year has passed for the NMA. Many activities have been initiated, many have been completed. Officers have been on the move, special committees have traveled the state presenting vital information to the membership via the spoken word. Their contributions in time and effort have been instrumental in meeting the responsibilities of this Association, and a commendation of "well done" is a small token of thanks for their efforts in behalf of the medical profession. The advantage of this method of communication is obvious and consideration is being given to continue this form of dialogue in the year ahead.

The influx of meetings since October, 1975, has been noticeable and must be attributed in part to Association activities on professional liability. This activity plus others produced over 100 meetings. Added to this is a record-breaking year for incoming and outgoing mail.

It has also been a unique year from the standpoint of individual member contribution to Association activity. A considerable number of members were asked to participate in some manner in a variety of activities and programs. Their response was positive and effective and a genuine example of "grass roots" participation. The continued efforts of officers and members in the past year give the Association a positive image plus identification as an interested and active organization. The staff is especially appreciative of the membership response to the many contacts made during the past year.

STATE LEGISLATION — It was a busy year as attested by the Report of the Medical Service Committee contained in the Handbook.

The 1977 session of the Legislature will be 90 days in length. With the retirement of a number of Senators plus the fact this is an election year, we can anticipate a number of freshman legislators for the upcoming session.

Local contact with Senators is still the key to a successful program and you will again be contacted by appropriate individuals and committees to assist in this important activity.

NORTH CENTRAL MEDICAL CONFERENCE — The annual meeting of the North Central Medical Conference will be held November 7, 1976, at the Raddison South Hotel, Bloomington, Minnesota. The conference consisting of Nebraska, Iowa, North and South Dakota, and Minnesota presents an excellent socioeconomic program in medicine. All members are cordially invited to attend. Our Secretary-Treasurer, Russell L. Gorthey, M.D., will take office as Conference President at this meeting.

ANNUAL AND FALL SESSION — Omaha will be the site of the 1977 Annual Session which will be held at the Holiday Inn during the week of May 1-4. The 1977 Fall Session will be held at the Lincoln Hilton on the weekend of September 30, October 1. This date coincides with a home football game.

MISCELLANEOUS — This summer I was given the opportunity to attend a seminar in London on the British Health Care System. The program was presented to members of the AAMSE Advisory Committee to James Sammons, M.D., Executive Vice President of the AMA. During the seminar, we had the opportunity to visit with physicians, politicians, administrators both local and regional, hospital administrators and other strata of individuals involved in the health system. This provided the participants with a first-hand view of the British System. No one who attended the conference came away with any illusion of the British program being a replacement for the private care system of this country. In my opinion, it is a system that would not be acceptable in the United States.

It was an educational experience to see first hand a nationalized health program under lay control and to observe a system of planning and policy somewhat similar to the concepts being developed under the health planning law, P.L. 93-641. It was a most challenging and productive conference for the participants.

Respectfully submitted,
KENNETH NEFF
Executive Secretary

REPORT OF THE CREIGHTON UNIVERSITY SCHOOL OF MEDICINE

It has now been five months since I last reported to this group at the Annual Meeting of the House of Delegates this spring. During the intervening five months, Creighton University School of Medicine has graduated a class of 112 new physicians, occupied a new facility, commenced a new year of house officer training, met a developing financial crisis head on, and admitted the graduating class of 1980. For us it has not been a quiet summer.

The class of 1976, numbering 112 and the largest class in modern history, received their degrees on May 15. They came from more than 25 states, and because of the nature and opportunities for graduate medical education, dispersed almost immediately to nearly as many locations. However, a significant percentage of the new house officer slots in the Creighton University affiliated programs were filled by our own graduates, indicating a relatively high regard by our students for the quality of those programs.

Even as one class was graduating, work was being completed on the composition of the entering class for the current academic year which began its studies on Monday, August 30. The characteristics of that group are both interesting and significant. Of the class of 110 students, 29 are Nebraskans, establishing a new high for students from this state in recent times. The second largest block of students (19) was from Wyoming honoring our contractual commitments to that state to assist in providing educational opportunities for young men and women who otherwise have little opportunity for access to a medical education. In all, 60 of the 110 students are from Nebraska or the states contiguous to Nebraska. Fifteen are from the west coast with California leading that group with nine students, and 10 are from the east coast with New York leading with five. It is also significant that 20 of the 110 entering freshmen are women, providing evidence of our good faith in increasing the opportunity for a medical education for females. In all, the entering class was drawn from 8,269 applicants of which 182 were accepted.

Changes in the program and curriculum continued to be evolutionary rather than revolutionary. A thorough student and faculty review of the basic science curriculum during the preceding year resulted in several modifications of the curriculum for the first year and a half. Significant among these was the reinstitution of a course in embryology, and strengthening of the offering in neurosciences. Off-campus electives by seniors continued to be popular with more than 75% of the seniors taking at least one elective at another medical center. Finally, there was an identifiable trend toward more course offering in the medical subspecialties.

We are particularly pleased not only with the strengthening of our cooperative programs with the University of Nebraska Médical Center, but with the gradual extension of these programs in areas of demonstrated need. The most recent cooperative venture has resulted in our entering into an agreement with the University of Nebraska Medical Center for the training of physicians in family medicine, an outgrowth of recent action by an enlightened legislature.

Creighton University School of Medicine's historic commitment to share its resources with the community was, of necessity, tempered by the availability of money to support community service programs. However, the School continued to participate in service programs partially funded by federal funds for children and youth and family planning. A community emergency center established a little more than a year ago in cooperation with the Immanuel Medical Center at the site of the vacated Immanuel Hospital continued to serve the needs of the people of that area of Omaha as an ambulatory care program under the direction of the Department of Family Medicine. The faculty of the School of Medicine also participated actively in the emergency medical services program for the metropolitan Omaha area developed under the aegis of the Health Planning Council of the Midlands.

As many of you know, the Continuing Education Program of the Creighton University School of Medicine was accredited early last year by the AMA Council on Medical Education. It would appear that the accreditation of that program has been both helpful and justified. A review of the activities during the 1975-76 academic year showed a significant increase over preceding years with the number of program offerings designed primarily for the practicing physician increasing three-fold. Registrations for all continuing education courses sponsored by the School of Medicine, including courses designed specifically for nursing personnel, emergency medical technicians, and other hospital personnel, increased from 1146 during 1974-75 to 3982 by the close of the past academic year. During this year, our faculty members provided more than 900 contact hours of instruction in these programs, in most instances without additional remuneration.

We all recognize that quality faculty, students, and program management are the keys to quality medical education. But none of these can be optimally effective without quality facilities. These are rapidly becoming available to the Creighton University School of Medicine. On April 30, 1976, Unit III of the Dr. D. D. and Mabel L. Criss Medical Center was dedicated with the dedicatory address rendered by Dr. Theodore Cooper, Assistant Secretary for Health, HEW. This facility not only provides lecture space, laboratory space, and faculty office-laboratories for the School of Medicine, but also serves as the permanent home of the University's School of Pharmacy. The last napkin from the dedicatory reception had hardly been cleared away before renovation of the second floor of Unit II of the Criss Medical Center was begun as the first step in moving the College of Nursing into the Medical Center complex. The new teaching hospital to replace the existing and obsolete Creighton Memorial St. Joseph Hospital is now more than 70% complete, with the companion facility, the Boys Town Institute for Communicative Disorders in Children, running well ahead of its schedule. We are currently deeply involved in planning for moveable equipment needs for the hospital and health professions center, and at the present time are preparing to occupy the facility as early as late 1977. Finally, exterior construction of the new Health Sciences Library Learning Resource Center is nearly complete with the move into this facility tentatively programmed for next summer.

I would be less than honest if I did not acknowledge that our pride in the quality and progress of our programs has been considerably clouded by an emerging critical financial concern. As is true with most other medical schools in the country, a drastic reduction in federal support of operating programs — generally without warning — hurt us severely. This has forced us to severely restrict anticipated expenditures and, in fact, forced the elimination of a significant number of budgeted faculty and staff lines. Unlike many if not most medical schools, we cannot look to a state legislature for emergency appropriations in the short term or replacement funding over the long term.

While the immediate consequences were acute and painful, the long term consequences will undoubtedly include a substantial shift in the financial support base of the School. We have already negotiated a doubling of our commitment to the State of Wyoming for educational opportunities for Wyoming residents, and are currently discussing expansion of that commitment even further. In addition, we are actively exploring opportunities for the negotiation of similar contracts with other states without medical schools. Secondly, it is painfully obvious that a greater proportion of our operating expenses in the future must be passed on to the student. Tuition for the current academic year increased by $770 over the preceding year, and another substantial hike must be anticipated for the 1977-78 academic year. This means that if we are to avoid severely altering the character of our student body to include only the sons and daughters of the wealthy, there must be increased opportunities for student financial aid, whether from the public or the private sector. We have entered an era when the accumulation of personal debt is neither unrealistic nor stigmatizing. However, before a student can obligate himself to borrow money to complete a medical education, there must be places he can secure those loans. Even now, an increasing proportion of our student body has aligned itself with either the programs of the Military Services or the National Health Service Corps. However, there are too few opportunities of this kind to accommodate the needs that the increasing tuition rates are imposing upon them.

I welcome this opportunity to share with you our progress and our problems. We will appreciate your sober reflection concerning both.

Respectfully submitted,
JOSEPH M. HOLTHAUS, M.D.
Dean

REPORT OF THE NEBRASKA REGIONAL MEDICAL PROGRAM

The National Health Planning and Resources Development Act of 1974 (P.L. 93-641) requires that Regional Medical Programs terminate their activities after Health Systems Agencies are established within the areas which those RMP's presently serve. The language of the law would indicate that it was the intent of Congress to create a merger between RMP, Comprehensive Health Planning agencies and Hill-Burton agencies, but as a practical matter, the law has only reorganized the planning and Hill-Burton agencies into a different structure and removed RMP from the scene. The present plans of the Nebraska Regional Medical Program was to close the doors of NRMP on September 30, 1976. This closing is of course subject to federal laws, regulations, requirements, policies, plans and guidelines which may in the future ensue.

NRMP has, since its inception, invested over six million dollars for the improvement of medical care for Nebraska citizens. It has derived its strength from the support and guidance of the Nebraska Medical Association, which has acted as Grantee, and from the many dedicated volunteers who have served as members of the Regional Advisory Group.

Twelve projects were terminated on December 31, 1975; one project terminated February 29, 1976; and one terminated May 31, 1976. An additional fifteen projects are currently in operation and will be phased out as they are completed. A good many projects initiated by NRMP will continue under other sponsorship such as the Diabetes Project, the Learning Resource Center (a library of audio visual materials used primarily for inservice training of nurses) and several of the Community Health Education Consortia.

What will be lost is a considerable amount of knowledge painfully acquired in the administration of small grants from Public Health Service funds which are not research oriented. The Nebraska Regional Medical Program has, during its brief life, sponsored over 70 projects, most of which were excellent and, admittedly, a few of which were disasters. The staff has developed through this experience an excellent ability to determine whether a proposal is sensible, whether it meets a real need, and if it is workable. They have caressed and nurtured a number of proposals, which contained a good idea but had deficient designs, into worthwhile projects.

While each of the projects had a system of evaluation built into it, it is somewhat difficult to assess the total impact of NRMP upon the health of the people in Nebraska. Because of frequent changes in direction mandated from Washington, a lot of time was lost in administrative reorganization. It appears to those closest to it that NRMP after several shaky starts had developed the experience and expertise required to make a significant positive impact on the medical care delivered to our citizens, and to do it within the established framework of medical care which has served citizens so well in the past.

Respectfully submitted,
DONALD MATTHEWS, M.D.
Program Coordinator

REPORT OF THE STATE DEPARTMENT OF HEALTH

The opportunity to comment on selected activities in which the State Health Department is involved is greatly appreciated. Two are especially commended to your attention at this time — namely, Emergency Medical Services (EMS) and the national swine influenza immunization program.

Since the subject was last reported to you, regional Emergency Medical System projects in the Greater Omaha, Central Nebraska, Southwest Nebraska, and Panhandle regions have embarked on their second year of promoting functioning systems for dealing with medical emergency care situations as they arise. Southeast Nebraska and Northern Nebraska have projects submitted for federal support and are hopeful of getting underway within the next six months. These projects deal with access to the system; communication between emergency vehicles, medical facilities, and physicians; training of emergency medical personnel; and all other aspects of assuring quality emergency care. I would like to particularly call to your attention workshop sessions being held in each region for physicians to study in depth the advanced life support emergency medical care services which are appropriate for their individual hospitals. The advanced cardiac life support courses held in York, Scottsbluff, and Seward to date have been very well accepted by the physicians participating. It is planned to continue these sessions and extend them into other communities.

Switching to the swine influenza program, I would like to share some information with you. There have been delays at the national level which have resulted in lack of availability of any vaccine being sent to the states to date; none is anticipated before October 1st. Two memoranda detailing the updated planning by our department and stating the essential points of the newly passed federal statute dealing with liability (P.L. 94-380) are enclosed. When the vaccine becomes available, we believe Nebraska's program is ready to function effectively.

In closing, mention is made of the department's designation as the state agency responsible for administration of the state government responsibilities under the federal planning law (P.L. 93-641).

This report has attempted to deal with major programs of current interest to physicians. There are many other programs that are continuing to serve the various health functions. We are grateful for the support of Nebraska physicians and enjoy our contacts which frequently result in suggestions of ways to improve the efficacy of our programs.

Respectfully submitted,
HENRY D. SMITH, M.D., M.P.H.
Director of Health

MEMORANDUM

TO: Organizations and agencies concerned with the aged
FROM: Nebraska State Health Department
SUBJECT: Update on Swine Influenza Program
DATE: September 13, 1976

As you know there is a nationwide effort to make vaccine available to protect the public against swine influenza. There have been set-backs in the program causing delays in vaccine distribution, but these problems are being overcome and the vaccine should start becoming available in October. However, at first the supply of vaccine will be limited. This will necessitate the cooperation and understanding of everyone involved; medical sector, civic organizations, and the general population.

Early field trials have determined that the Swine Influenza vaccine is safe and effective for the population 18 years of age and older. Further tests are being done for those under 18 years of age and the results will not be known until sometime in October. There are, at present, no public programs being planned for people under 18 years of age.

Two vaccines will be available. (1) Bivalent vaccine for the high risk population (45 years of age and older and the chronically ill 18 years of age and older). This vaccine protects against A/New Jersey (swine) and A/Victoria Influenzas. (2) Monovalent vaccine will be for the general healthy population 18 years of age to age 44. This in only the A/New Jersey strain.

BIVALENT VACCINE — A/New Jersey (swine) and A/Victoria

Bivalent vaccine will receive top priority. Initially, this vaccine was for 65 years of age and older but because of greater availability, the age limit was lowered to 45 for the health population.

All agencies, institutions, and organizations that work with the aged should be advised and alerted to the availability of this vaccine. There is no certainty that swine influenza will occur in Nebraska, but A/Victoria did occur in Nebraska last year and probably will reappear this year.

Since there has been a delay in distributing this vaccine, cooperation and assistance is necessary in assuring the aged have the opportunity to receive the vaccine.

The bivalent vaccine will be made available to private physicians and county health departments beginning approximately the second week of October. When this vaccine becomes available, the high risk population may receive the vaccine from private physicians and on-going clinics in county health departments.

Nursing homes, senior citizen housing, institutions, or anywhere the aged may be in number should receive top priority in receiving the bivalent vaccine. Should influenza strike, these would be the areas hardest hit.

Where there are county health departments, personnel from their organizations may arrange for immunization of residents and plans should be made now to do so. In counties where there are no health departments, personnel will have to make arrangements with local physicians to receive the vaccine. Designated hospitals will be supplying the vaccine to local physicians who can order the vaccine for nursing homes. No vaccine will be distributed without the support of a physician ordering the vaccine for a nursing home or other extended care facility.

No charge will be permitted for the vaccine. Upon request, the Nebraska State Health Department will supply syringes and supplies where needed. No cash reimbursement will be made for supplies ordered locally.

Each person receiving the vaccine must sign an informed consent form. These forms are available from the Nebraska State Health Department. Although private physicians are not required to use the form, they are responsible for informing the patients of risks and benefits involved in receiving the influenza vaccine.

MONOVALENT VACCINE — A/New Jersey (swine) Influenza protection only

This vaccine will be administered to the general public through physicians' offices and county health departments. General mass immunization clinics will also be available with county health departments and the state health department working with county medical associations. Monovalent vaccine will not be available in sufficient quantities until late October or early November.

As the vaccine is made available, the public will be informed how, where, and when they may receive the vaccine.

LIABILITY — Bivalent and monovalent

Legislation (S 3735) passed on August 18, 1976 appears to relieve the public and private sector of liability providing there is no charge for the vaccine per se of its administration; and where the program procedure of informed consent is followed. By vaccine distribution time, more detailed interpretation of this bill should be available.

VOLUNTEERS

Organizations interested in working with the influenza effort should contact their county health department, county medical association, and, where there are no county health departments, the Nebraska State Health Department.

9 September 1976

Memorandum for: Paul Stoesz, M.D., Director, Division of Disease Control
From: Gary J. Snowden
Legal Counsel
Subject: NATIONAL SWINE FLU IMMUNIZATION PROGRAM OF 1976

Pursuant to the passage of the NATIONAL SWINE FLU IMMUNIZATION PROGRAM OF 1976, Public Law 94-380, in mid-August, 1976, the Secretary of the United States Department of Health, Education, and Welfare shall assist the health departments of the states by (1) developing a safe and effective swine flu vaccine and furnishing them with sufficient quantities of the same; (2) making grants to them to assist them in meeting their costs in conducting or supporting, or both, programs to administer such vaccine; and (3) conducting and supporting the training of personnel for the necessary immunization activities.

The Act also provides that the United States Government shall be liable with respect to claims submitted after September 30, 1976, for personal injury or death arising out of the administration of swine flu vaccine under the swine flu program and based upon the act or omission of any public or private agency or organization (including state and local health departments and nonprofit organizations) that provided an inoculation under the swine flu program **without charge** for such vaccine or its administration and in compliance with the informed consent form and procedures prescribed. This immunity from legal liability applies in an identical manner to all of the medical and other health personnel who provided or assisted in providing an inoculation under the swine flu program **without charge** for such vaccine or its administration and in compliance with the informed consent form and procedures prescribed. If any individual chooses to voluntarily contribute to any immunization program conducted by any public or private agency or organization, there would be no legal impediment to accepting and receiving the same.

Finally, the Act applies in identical terms to both the monovalent and bivalent vaccines; the coverage is the same.

REPORT OF THE UNIVERSITY OF NEBRASKA COLLEGE OF MEDICINE

In the midst of several important controversies in medicine, such as federal entanglements, medical liability insurance, cost and distribution of health education and care, there are some positive findings.

First, this is the season for admission to medical school, a very competitive and consuming process. We have in the past, and expect now, some of the finest young people in this state and country to apply to our medical schools, and we look forward to another high quality group of beginning doctors.

The graduates of our house officer training programs are ever more capable in the respective medical training areas, and we will have a bumper crop this year and more to follow. We wish to encourage, in all ways possible, these talented health professionals to settle and remain in Nebraska.

Our continuing medical education programs are improving, I believe, in quality and quantity. We plan to work closely with physicians in the state to achieve a correct balance of opportunities in the several different avenues of approach to this important area.

We look forward to the future with the hope and desire that the College of Medicine will serve its students well, and cooperate and be responsible with all physicians in the state to fulfill the medical needs of Nebraska.

Respectfully submitted,
PERRY G. RIGBY, M.D.
Dean

REPORT OF THE UNIVERSITY OF NEBRASKA MEDICAL CENTER

It's a pleasure for me to present this progress report from the University of Nebraska Medical Center and to reconfirm our commitment to a close working relationship with the Nebraska Medical Association. Dean Perry Rigby is reporting specifically from the College of Medicine; I will attempt to give you a campus-wide report.

Enrollments, particularly in Allied Health, Nursing and House Officer programs, continue to grow. Enrollments in the Colleges of Medicine and Pharmacy have stablized at what we believe to be desirable levels. This year we have 477 medical students in the three classes. Our entering class has now leveled off at 153 students. Our House Officer program continues to grow in response to Legislative direction and funding, and our enrollment count is 268. We now have 165 enrolled in the 10 Allied Health programs. The College of Nursing has 339 students in the Omaha program and 191 in the Lincoln program. The College of Pharmacy enrollment is 214.

With the opening of the new building this month, the College of Pharmacy completes its move from the Lincoln campus. The new building will be dedicated October 29, at 2 p.m. With this year's entering class, the new Doctor of Pharmacy Degree program goes into effect and will be the academic degree granted to all students completing the program in subsequent years.

Construction of the Ambulatorium at the west end of University Hospital continues on schedule toward an expected completion in the fall of 1977.

The Medical Center has forwarded a budget request to the Legislature that is realistic and attempts to cope with two rather sizeable problems — inflation and the anticipated loss of federal funds that now support basic educational programs.

As you know, Dr. Robert Sparks resigned as Chancellor earlier this year to become Program Director for Health Affairs of the Kellogg Foundation after four years of exemplary service to the state and to the University. A Search Committee which included representation from the Medical Association has forwarded a list of recommended candidates to the Board of Regents. Hopefully the process will result in the selection of a new Chancellor before too many months have passed.

Finally I wish to express the great appreciation we have for the Association's continued interest and support of the Medical Center.

Respectfully submitted,
HARRY W. McFADDEN, JR., M.D.
Interim Chancellor

REPORT OF THE ADVISORY TO THE AUXILIARY COMMITTEE

Gordon D. Francis, M.D., Grand Island, Chairman; Warren G. Bosley, M.D., Grand Island; Guy M. Matson, M.D., Lincoln; Y. Scott Moore, M.D., Lincoln; Lyle H. Nelson, M.D., Crete.

The committee met on September 1, 1976, with officers and members of the Executive Committee of the Nebraska Medical Association Auxiliary at their request.

Mrs. O. R. Hayes, Chairman of the Health Gallery Committee, reported on the efforts of the Auxiliary to raise funds for the Health Gallery Project. Her committee has set a goal of $150,000 to be raised from the physicians and medical associations with a remaining $300,000 to be raised from foundations, industrial contributors and other sources. She stressed that the medical community would have to meet this goal for the project to be successful. Industrial contributors are willing to support this project if the profession is willing to support their own project. (This project was authorized by action of the House of Delegates of the Nebraska Medical Association in October, 1970.) Approximately $24,000 has been pledged to date by members of the medical profession. These pledges are tax deductible.

A number of suggestions were considered, and the committee offered the following recommendations:

1. Each member of the Nebraska Medical Association be asked to pledge a minimum of $200 over the next three years.
2. The Editor of the NEBRASKA MEDICAL JOURNAL be requested to and empowered to list in each issue of the NEBRASKA MEDICAL JOURNAL, until December of 1979, each member of the Nebraska Medical Association by name who has made a pledge to this project in three lists, as follows: a. Pledges of $10-$99, b. Pledges of $100-$999, and c. Pledges of $1,000 or More. These lists would be cumulative and repeated in each issue starting in January of 1977.
3. Request that the newsletter contain a reminder that pledges are needed until the project is successful.
4. Request that the House of Delegates urge each and every member to generously support this project and to ask each constituent society to appoint a local chairman to aid the Auxiliary in their efforts to raise these funds.

Respectfully submitted,
GORDON D. FRANCIS, M.D.
Chairman

REPORT OF THE GERIATRICS COMMITTEE

Vernon G. Ward, M.D., Omaha, Chairman; Douglass A. Decker, Jr., M.D., Lincoln; Dwight M. Frost, M.D., Omaha; Richard D. Krause, M.D., Lincoln; Clyde A. Medlar, M.D., Columbus.

Since the report of the committee in May, 1976, no new official business has been presented to this committee for action.

The committee has continued its relationship with the Commission on Aging through the Nebraska Commission on Aging Advisory Panel.

The last meeting of the Nebraska Commission on Aging Advisory Panel was in Lincoln on June 2, 1976. The organization of the Advisory Panel was discussed. This Panel is appointed by the Nebraska Commission on Aging and appointments end in October, 1976. The fiscal year 1977 State plan was reviewed in detail. At this meeting it was suggested that a copy of Commission on Aging meeting minutes be presented to each Advisory Panel member. This has been implemented.

The Commission on Aging had its quarterly public meeting on June 3-4, 1976, in Lincoln.

The Commission also met on August 6, 1976, for a regular meeting which was held in addition to the quarterly meetings and its principal purpose was to review grant applications from across the State of Nebraska.

Minutes of both of these meetings of the Commission have been distributed to members of the Advisory Panel.

Respectfully submitted,
VERNON G. WARD, M.D.
Chairman

REPORT OF INSURANCE AND PREPAYMENT MEDICAL CARE COMMITTEE

A. L. Smith, Jr., M.D., Lincoln, Chairman; Harold Dahlheim, M.D., Norfolk; Russell J. McIntire, M.D., Hastings; Leland J. Olson, M.D., Omaha; Paul M. Scott, M.D., Auburn; Stanley M. Truhlsen, M.D., Omaha; Hiram H. Walker, M.D., Kearney.

Your Insurance and Prepayment Medical Care Committee has met on three occasions discussing the low cost of group life insurance available to the members of the Nebraska Medical Association. Your committee urges all members to take advantage of this group life insurance if they have any need for inexpensive coverage.

The remainder of the committee's time has been spent assisting monitoring of the LB 434, the medical liability statute, the pro's and con's of which have been presented before Judge Samuel VanPelt for his decision as to its constitutionality. Your committee urges the members of the Nebraska Medical Association to obtain coverage under this new statute as carefully outlined in the Professional Liability Insurance Update of the Nebraska Medical Association.

Respectfully submitted,
A. L. SMITH, JR., M.D.
Chairman

REPORT OF THE MATERNAL AND CHILD HEALTH COMMITTEE

William L. Rumbolz, M.D., Omaha, Chairman; Dale Ebers, M.D., Lincoln; Charles Field, M.D., Omaha; L. Palmer Johnson, M.D., Lincoln; Bernie Taylor, M.D., North Platte; Warren Bosley, M.D., Grand Island.

The Maternal and Child Health Committee has held two meetings in July and September. Much of the discussion was directed toward defining the problems.

Concern was expressed over the rather large number of maternal deaths in 1975. It was suggested that an update of the maternal mortality review procedure would be timely and acceptable. Such things as a more detailed questionnarie and a review of pertinent records could present a more meaningful review. Each maternal death should be reviewed anonymously by a committee selected by the Maternal and Child Health Committee and the deliberations of this committee be relayed back to the attending physician as well as being reported periodically in the Nebraska Medical Journal. Before specific recommendations were forthcoming, our committee was invited to attend a regional maternal mortality review conference with the aim of establishing a uniform type of study for a several state area. With this in mind, it was decided to delay any recommendations for change in maternal mortality review procedure until the suggestions of this regional conference could be discussed.

It was suggested that the Maternal and Child Health Committee should undertake a review of perinatal results with the aim of improving infant survival. A discussion with Dr. Robert Grant of the State Health Department indicated that most if not all of these figures were already being accumulated by the State Health Department. A list of the numerous information perimeters will be supplied the Maternal and Child Health Committee and drafted into a report on perinatal results.

The present State Statute requiring mandatory P.K.U. testing was discussed by the committee. It was pointed out that while the law is on the books, it does not define just who is responsible to assure the test is done. The State Health Department is drafting rules and regulations to accompany the law. The committee saw no reason to make any additional recommendations.

Discussion occurred regarding the designation of different hospitals in the state for participation in Infant Intensive Care. It was pointed out that the designation was made by the Director of Maternal and Child Health for the administration of Title V funds by the Director of Crippled Childrens' Services. Additional hospitals could request consideration for Infant Intensive Care depending on the needs for a specific units.

The Maternal and Child Health Committee wishes to express their appreciation to the State Health Department for their cooperation and assistance. It is hoped in the future that a formal liaison can be established between the Maternal and Child Health Committee and the Maternal Child Health Division of the State Health Department.

Respectfully submitted,
WILLIAM L. RUMBOLZ, M.D.
Chairman

REPORT OF THE RELATIVE VALUE STUDY COMMITTEE

Orin R. Hayes, M.D., Lincoln, Chairman; John A. Haggstrom, M.D., Omaha; Bernard L. Kratochvil, M.D., Omaha; Lyle H. Nelson, M.D., Crete; Arthur L. Weaver, M.D., Lincoln; Carlyle E. Wilson, Jr., M.D., Omaha.

The activity of this committee has ceased since the announcement in the NMA's Newsletter notification to the membership. Although the activity of this committee was well intended and appeared to us to provide a useful service and helped limit excessive charges, the opinion of legal counsel and the actions of other specialty and state societies in withdrawing a relative value schedule, resulted in a recommendation by the Chairman and an action of the Policy Committee to suspend any further activity in establishing relative values and to withdraw any support of such a publication. Although the committee is constitutionally established, it is now placed in an inactive status pending revision of the Constitution and By-Laws of the Nebraska Medical Association.

The Relative Value Study had one important function that continues to be well established and useful to members of the Nebraska Medical Association, both locally and nationally. This function is the coding of the various medical procedures according to the Current Procedure Terminology as published by the American Medical Association. The first publication of the Nebraska schedule was knowingly incomplete and there are now specialty societies that have established coding for procedures and a spectrum of new procedures has been established. It is the feeling of the Chairman that this function could be delegated to an ad-hoc committee under a constitutionally established committee or could be a simple administrative function. The continuing updating of this coding for the purposes of the medical profession and the various third-party payors is necessary and should be established under either responsibility.

Respectfully submitted,
ORIN R. HAYES, M.D.
Chairman

REPORT OF MEDICINE AND RELIGION COMMITTEE

John C. Goldner, M.D., Omaha, Chairman; Kenneth C. Bagby, M.D., Blair; Edward A. Holyoke, Jr., M.D., Ogallala; T. C. Kiekhaefer, M.D., Falls City; John J. Ruffing, Jr., M.D., Hemingford.

The Medicine and Religion Committee organized the speaker for the Annual Medicine and Religion Banquet held in conjunction with the state meeting in Kearney. Reverend Al Anderson gave an excellent presentation at the dinner. We have decided to continue the Medicine and Religion dinners rather than breakfasts as were held in the past and will hold them at the annual state meeting but not at the fall meeting.

Respectfully submitted,
JOHN C. GOLDNER, M.D.
Chairman

REPORT OF AD-HOC LEGAL COMMITTEE

James H. Dunlap, M.D., Norfolk, Chairman; Paul Goetowski, M.D., Lincoln; Clarene A. McWhorter, M.D., Omaha; John W. Porter, M.D., Beatrice; Robert W. Waters, M.D., O'Neill.

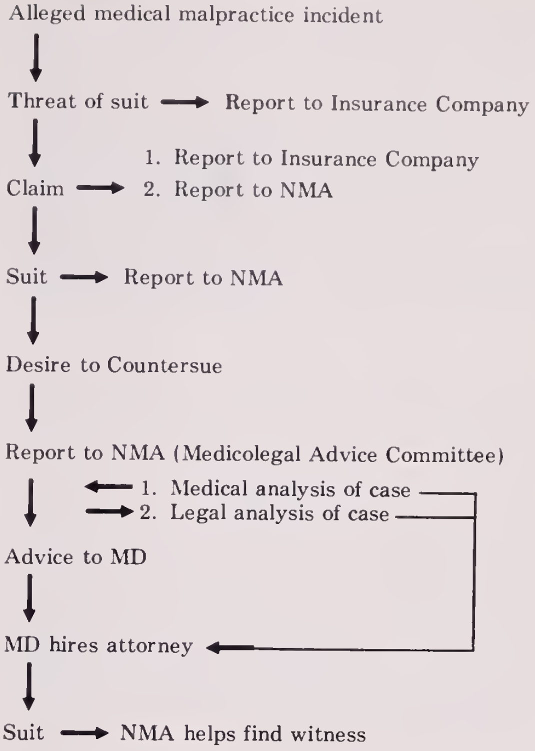
In accordance with Resolution #3 (Spring 1976) submitted by the Greater Omaha Medical Society and passed at the last meeting of this House of Delegates, an Ad-Hoc Legal Committee was appointed and has met. The purpose of this committee is "to evolve a plan to aid Nebraska Medical Association physicians who have been wrongly named in malpractice suits."

The attached "flow chart" schematically represents what your committee believes to be the logical sequence of events in the evolution of prospective counter-action. Several points of a philosophical and practical nature need to be emphasized in accordance with your Ad-Hoc Committee's current planning.

1. In order to be effective, this type of activity needs to be funneled through a single committee of the State Association and to this end, the current Medicolegal Advice Committee seems most appropriate.
2. In order to be effective, all facts dealing with a specific case need to be presented in writing to this committee as early as possible in the evolution of the claim and in the considered counteraction.
3. Funding for certain aspects of this project need to be considered. Your committee believes that monies will be necessary to secure legal counsel for the committee's current actions and other incidental current expenses. Discovery of legal precedence for action and development of new causes of action need to be considered by the committee and counsel. Additionally, your committee would recommend that legal analyses of individual cases would be required and to this end, additional funds would be needed. The committee does not believe that the aggrieved physicians attorney fees should be paid for by medical association funds but rather should be handled by the individual physician himself. We would therefore recommend that the House of Delegates approve the development of an appropriate budget by the Board of Directors to meet these specific needs.
4. The philosophic aim of the plan as outlined would be that of analyzing both medically and legally the proposed counteraction, funding this analysis, then in turn offering this advice and analysis to the aggrieved physician and his own selected attorney. Additionally, the Medicolegal Advice Committee might suggest appropriate witnesses to aid the physician in his case.

Respectfully submitted,
JAMES H. DUNLAP, M.D.
Chairman

COUNTERSUIT FLOW CHART


Alleged medical malpractice incident
Threat of suit
Report to Insurance Company
Claim
1. Report to Insurance Company
2. Report to NMA
Suit
Report to NMA
Desire to Countersue
Report to NMA (Medicolegal Advice Committee)
1. Medical analysis of case
2. Legal analysis of case
Advice to MD
MD hires attorney
Suit
NMA helps find witness

REPORT OF THE MEDICAL SERVICE COMMITTEE

Blaine Y. Roffman, M.D., Omaha, Chairman. **Legislative Subcommittee**: Robert F. Shapiro, M.D., Lincoln, Co-Chairman; Thomas G. Erickson, M.D., Fremont; Herbert D. Feidler, M.D., Norfolk; Donald F. Prince, M.D., Minden; Eugene Zweiback, M.D., Omaha. **Medical Liability Subcommittee**: Herbert Reese, M.D., Lincoln, Co-Chairman; Warren Bosley, M.D., Grand Island; James H. Dunlap, M.D., Norfolk; Dwaine J. Peetz, M.D., Neligh; A. L. Smith, Jr., M.D., Lincoln.

The Medical Service Committee for the ensuing year has been divided into two subcommittees; the Legislative Committee and the Medical Liability Committee. The reports thus of the Medical Service Committee will consist of two portions relating to each of these subcommittees.

LEGISLATIVE SUBCOMMITTEE

1976 was a busy year for the Nebraska Medical Association in the Legislative Arena. Most of the activity was directed towards the Medical Association sponsored Malpractice Bill and other bills relating to malpractice. These bills will be the subject of a separate part of this report.

On other fronts, the Medical Association fared well in presenting its viewpoints and influencing legislation related to the practice of medicine and the consumer.

On the positive side of the ledger, the Medical Association supported LB 877 which provided improvements to the General Licensure Act and LB 764 which provided some improvements to Uniform Anatomical Gift Act. Both of these bills passed. Although the Medical Association had no formal opposition to LB 632, a bill which would have required laboratory evidence of the rubella response before marriage, the bill did not make its way through the legislature.

Generally, we have opposed extending further licensure to paramedics. Two bills related to such licensure, LB 818 and LB 714 relating to medical technologists and speech pathologists and audiologists respectively were opposed and were indefinitely postponed.

LB 627 was a bill severely restricting the sale of hypodermic needles. We opposed this as unreasonable legislation and the bill was indefinitely postponed. LB 741 defined the practice of clinical psychology. We were opposed to certain portions of this bill. After discussion, a consensus was reached but the bill was indefinitely postponed. LB 909 would permit pharmacists to substitute drugs on prescriptions. The Medical Association opposed certain elements of the language. The bill was indefinitely postponed. A legislative study committee was appointed to study the issue and this type of legislation will be again submitted in the 1977 legislature.

LB 806 was the Mental Health Commitment Bill. Medical Association put forth extensive modifications of the bill. There was not complete satisfaction with the final appearance of the measure. However, the bill did pass.

A minor bill, LB 734, related to the Uniform Anatomical Gift Act identifying the gift on drivers licenses. We were neutral. The bill ended up indefinitely postponed.

A bill, LB 654, would have adopted the Uniform Act on blood tests to determine paternity. The Medical Society had some objections to the medical and scientific aspects of this piece of legislation and as a consequence, we were able to get this piece of legislation indefinitely postponed.

Insofar as the upcoming year is concerned, it appears that we deal with the same items repeatedly. Many of the bills that were successively opposed will reappear in altered forms. The largest thrust of legislative activity, however, will most likely relate to attempts to alter or repeal LB 434, the malpractice bill.

We would like to extend our thanks to the many members of the Nebraska Medical Association who have assisted in legislative activities either as participants in public hearings, or in writing, or verbally contacting their local representatives.

MEDICAL LIABILITY SUBCOMMITTEE

The Subcommittee on Medical Liability has met on two occasions since LB 434 became law. The Attorney General's stand and recommendations of nonimplementation by the Insurance Department has been well publicized. A hearing in District Court has been held and a decision regarding constitutionality is pending. Irregardless of some of these unsettled questions, the committee feels this is a viable law as of July 9, and participation has been encouraged for all NMA members. Liaison with the Insurance Department and St. Paul Insurance Company has been maintained. The members have been informed at regular intervals of the developments. At the present time, 428 Nebraska physicians have applied to come under the law and the excess liability fund amounts to $200,000, as of 9/15/76. When all payments have been received from the above physicians, the balance will exceed $400,000. To date, we have received no information of any individual opting out. St. Paul Insurance Company has been announced as the risk manager but with the present status of nonimplementation by the Insurance Department, this has not been implemented.

Nine areas of continued study and action were categorized: (1) Constitutionality. (2) Interim study of national malpractice situations and solutions. (3) Continued study of the effect of LB 434. (4) Continued study of improvements and modification of LB 434. (5) Liaison with the State Department of Insurance and the insurance companies. (6) Professional education ramifications regarding LB 434. (7) Program development for professional and hospital risk prevention and management problems. (8) Professional advice and study of liability counteractions. (9) Long-range study to consider future alternatives. Constitutionality is a Policy Committee matter. The Medicolegal Advice Committee could serve in a capacity of providing formal medical-legal advice to the insurance companies and defendant physicians, and also offer medical-legal advice along prophylactic lines. It was felt by the committee that this committee could also manage professional hospital risk prevention and management problems. All other categories are under surveillance without definite recommendations at this time. The committee feels along with the legal opinion that this is an outstanding law that will survive the test of constitutionality and will accomplish the goals of holding down premium cost and in turn the cost of medicine.

Respectfully submitted,
BLAINE Y. ROFFMAN, M.D.
Chairman

REPORT OF THE CONSTITUTION AND BY-LAWS COMMITTEE

J. P. Schlichtemier, M.D., Omaha, Chairman; R. L. Cassel, M.D., Fairbury; Earl J. Dean, M.D., Hastings; John T. McGreer, III, M.D., Lincoln; Harold M. Nordlund, M.D., York; Robert D. Sidner, M.D., Kearney.

Resolution #8, regarding Life Membership, was referred to the Constitution and By-Laws Committee for consideration. It was the consensus of the committee that the suggestion to reduce Life Membership from 45 years to 40 years had merit.

Therefore, it is the recommendation of this committee that Section 5, of the By-Laws be amended by changing the word, "45" to "40." With this modification, plus the fact that Life Membership may be granted for "other good cause," it would appear to the committee that this is sufficient criteria for granting Life Membership.

Your committee recommends acceptance of this report.

Respectfully submitted,
J. P. SCHLICHTEMIER, M.D.
Chairman

REPORT OF THE MEDICAL EDUCATION COMMITTEE

John W. Smith, M.D., Omaha, Chairman; James E. Bridges, M.D., Fremont; Wendell L. Fairbanks, M.D., Auburn; Joseph M. Holthaus, M.D., Omaha; Leonard R. Lee, M.D., Lincoln; Perry G. Rigby, M.D., Omaha; Fred J. Rutt, M.D., Hastings; Robert J. Stein, M.D., Lincoln; Larry F. Wilson, M.D., Syracuse; Paul R. Young, M.D., Omaha.

The accreditation program of your State Association for Category I programs in continuing medical education carried out its first survey May 14. The second survey is scheduled for November.

More than one year ago, we sent requests to every specialty organization in the state asking them for their input about the amount and type of continuing medical education that would be appropriate for each of the specialties. In our report to the House of Delegates in May, 1976, our committee asked for suggestions from the members about continuing medical education requirements. The response to these two requests has been disappointing. For this reason, your committee plans to draw up guidelines for consideration by the House of Delegates next spring.

Your committee requests that the House instruct it to study the following two items and report back at the Spring meeting: 1. What constitutes continuing medical education for the Nebraska physician (what activities will be given credit)? 2. Should continuing medical education be related to membership in the Nebraska Medical Association?

The Medical Education Committee has reviewed a proposal for data processing of the records of continuing medical education efforts by Nebraska physicians. In essence, the physician fills out an IBM card each time he completes a continuing medical education activity. These then are centrally processed, and reports, summarizing his activities, are then sent to the appropriate groups as requested by the physician (county medical society, hospital staff, specialty society). This system is now active and operating for a hospital in this state. The cost estimate is that the program will cost about $7.50 per physician per year for the first 700 physicians. Additional physicians in the program will lead to reduction in the cost. This includes two summary reports each year. It is the recommendation of your committee that the NMA make such a system available to the larger county medical societies and act as the repository of such information for the physicians of the state.

Respectfully submitted,
JOHN W. SMITH, M.D.
Chairman

REPORT OF THE AD-HOC COMMITTEE ON PSRO

Houtz G. Steenburg, M.D., Aurora, Chairman; John H. Bancroft, M.D., Kearney; Allan C. Landers, M.D., Scottsbluff; Donald J. Pavelka, M.D., Omaha; C. Lee Retelsdorf, M.D., Omaha; Carlyle E. Wilson, Jr., M.D., Omaha.

Your Ad-Hoc Committee on PSRO, composed of Doctors Steenburg, Bancroft, Pavelka, Papenfuss, Wilson, Retelsdorf and Landers, met again at the request of the Policy Committee.

The PSRO law has not changed substantially since our last meeting. However, HEW appears to be changing the rules of the game as contracted by some conditional PSRO units.

There also appears to be some unknown and "unspeakable" relationship evolving at HEW levels between HSA's and PSRO. It would seem the combination of the two would equal N.H.I.

PSRO seems more and more to represent governmental infringement on individual rights.

PSRO takes a considerable amount of physicians time from patient care for governmental paper work.

There seems to be increased cost to the taxpayer over savings per health care dollar under PSRO programs.

PSRO continues to be a cost control program rather than a quality control program.

For the above reasons, your Ad-Hoc Committee feels the NMA and/or the Nebraska Foundation for Medical Care should not at this time become involved in running a PSRO unit for the State of Nebraska.

We are in favor of meaningful Peer Review and continuing education.

We feel there is a need to accumulate medical audit and patient care data from such sources as participating hospitals in CPHA, Blue Cross-Blue Shield, Mutual of Omaha, and the Medicaid programs for the edification and enlightenment of the Peer Review Committee and Nebraska physicians.

Funds were not available at this time for comparison studies per diagnosis of a non PSRO state vs a PSRO state as might show via CPHA's QUAM-2, so this charge to the committee has gone unanswered.

The Ad-Hoc Committee on PSRO will, at the House of Delegates direction, remain intact and continue to monitor such changes, etc. within the framework of PSRO as becomes available to us.

Respectfully submitted,
HOUTZ G. STEENBURG, M.D.
Chairman

REPORT OF THE PUBLIC RELATIONS COMMITTEE

Craig R. Nolte, M.D., Lincoln, Chairman; Richard D. Gentry, M.D., Falls City; Dale E. Michels, M.D., Lincoln; John C. Sage, M.D., Omaha; Joseph C. Scott, M.D., Omaha; John C. Wilcox, M.D., Aurora.

1975-1976 proved a challenge to the public relations posture of organized medicine. The Nebraska Medical Association has been active in the past year in setting forth periodic news releases and has widespread publication of its periodic "Health Tips." These include radio segments and spot announcements from television stations. It provides a fair amount of public service time and space from the media to develop the good name of the profession.

A traffic safety film entitled, "But for the Grace . . .", developed by the NMA, has been distributed with favorable response in schools and traffic safety programs.

A bicentennial effort on a "Let's Hear it for Medicine, USA" program has been developed and well received in the media. Historical achievements and news featurettes are included in this program.

Consideration was given to the NMA's access to news media, and the availability of favorable publicity has been discussed in detail. The NMA has traditionally chosen not to employ paid "appeal ads" or negative responses to individual criticisms. A program of developing and maintaining the positive image of the NMA is underway. This is based on news releases to newspapers and newsletters, community action groups, and electronic media.

Many NMA members have expressed concern over media pressures on the medical profession. This has been researched in depth, and new methods of solidifying the professional image before the public are now in consideration.

Respectfully submitted,
CRAIG R. NOLTE, M.D.
Chairman

REPORT OF THE MEMBERSHIP COMMITTEE

Roger P. Massie, M.D., Plainview, Chairman; Alvin A. Armstrong, M.D., Scottsbluff; K. B. Carstens, M.D., Fairbury; Klemens E. Gustafson, M.D., Beatrice; James K. Styner, M.D., Lincoln; John D. Woodbury, M.D., Omaha.

The Membership Committee of the NMA met August 19, 1976, for the purpose of assessing the membership status of the students, house officers and non-NMA members in the state. The committee first heard a report on the activities of the NMA headquarters office relating to membership solicitation and acknowledgement. Current membership statistics were also reviewed as was information on dues collection. The committee then discussed methods for noting new physicians entering practice in the state. To date, newspaper clippings have been used by NMA headquarters as a major source of prompt and reliable information concerning new physicians. It was further discussed that another method for obtaining information on new physicians in the state might be gotten from the State Department of Health as new physicians entering practice are to register with the local County Registrar of Deeds, within 30 to 60 days, who in turn is to notify the State Department of Health.

The committee then discussed the need to make all students, house officers and physicians in the state aware of the activities of the AMA and benefits deriving from membership. The committee felt that in today's socioeconomic mileau, it is extremely important that non-members become involved and help share the expense load. It was hoped that a publication such as the American Medical News could be made available to all students and house officers in the state in order to help kindle their interest in organized medicine. Further it was suggested that students and house officers could hopefully be reached through small informal luncheon gatherings. It was hoped this could enliven interest for membership in the present SAMA organizations in the state, in addition to the present yearly NMA solicitation letter to each student and house officer.

It was decided by the committee that the following action would be taken toward increasing NMA and AMA membership:

1. Dr. Papenfuss, NMA President, will send a personal letter each month to each non-member, practicing physician, for five or six months emphasizing NMA-AMA positions and benefits from membership.

2. The committee directed each County Medical Society be asked to form a committee to solicit membership. This County Medical Society committee will be urged to contact non-members personally and on a one-to-one basis with close follow-up. In accordance with the above actions, the NMA headquarters was asked to prepare a list of non-members and NMA members not currently AMA members for use by the County Medical Societies and NMA President.

Discussion also arose pertaining to the fact that physicians' assistants have inquired about a possible category of membership in NMA. It was felt that no action should be taken in this regard at the present, but that the NMA Policy Committee should continue to monitor this situation in the future. The committee also discussed one other item, that being the possible use of the process and forms used by the Utah Medical Association to solicit and accept new members. This will be discussed further at the committee's next meeting.

In conclusion, the committee would like to thank Drs. Papenfuss and Lempka for their interest and active participation in our committee work.

Respectfully submitted,
ROGER P. MASSIE, M.D.
Chairman

REPORT OF THE COMMITTEE ON HEALTH EDUCATION IN SCHOOLS AND COLLEGES

S. I. Fuenning, M.D., Lincoln, Chairman; Frank O. Hayworth, M.D., Omaha; Clyde L. Kleager, M.D., Hastings; Robert M. Sorensen, M.D., Fremont; Eileen C. Vautravers, M.D., Lincoln.

This is a progress report of the activities of this Committee since the last report which was submitted on May of 1976. This Committee has been studying various school health education projects, particularly those that have been evaluated and have proven to be effective. As a result of this study, this Committee has identified the Berkeley project, or as it is now known, the School Health Curriculum Project to be an effective health education program for elementary and secondary schools. It will be implemented for the first time in Nebraska in the school system in Wahoo. This will be a pilot project. It is anticipated that this will be successful as it has been in other parts of the country. Those physicians who are active on school boards and wish to initiate this particular project in their respective school systems would have cooperation from this Committee in supplying the information about the project and how it could be implemented in their school district.

This Committee has been very much interested in the development of the Health Museum which is oriented to the promotion of health education in the schools and in the community. The report of the Advisory Committee to the Auxiliary Committee dated September 1, was reviewed, and this Committee supports the recommendations concerning the Health Gallery project to the House of Delegates.

The National Center for Health Education, which is a private non-profit organization and represents the private sector in this country, has appointed its first President, Dr. Robert L. Johnson, formerly the Vice President of the University of California at Berkeley. In his remarks to the IXth International Conference on Health Education held recently at Ottawa, Canada, he has stated the following:

> "The unique opportunity for the National Center in examining, debating, and advocating both finite and conceptual views about health education derives from three primary sources, (1) an unprecedented national interest in health education, (2) the voluntary, collaborative efforts of widely diverse points of view as reflected in the Center's governing structure, and (3) a deeply cherished American view that informed people should make their own decisions as to what is best for them."

This Committee is also studying the health education implications in the following two legislative statutes:

1. Public law 94-317 - National Consumer Health Information and Health Promotion Act of 1976

2. Public Law 93-641 - National Health Planning and Resources Development Act of 1974

A report will be submitted after the study has been concluded.

As a result of a meeting with representatives from Nebraska educational associations and with the Nebraska State Commissioner of Education, Dr. Anne Campbell, this Committee will assist in the coordination efforts between educational associations and medical associations. The American Medical Association has recognized such a need and has established such a Committee. This Committee has approved the recommendations that a meeting be held in November of representatives of Nebraska Educational Associations and medical associations to discuss the further development of school health education programs in Nebraska. Dr. Bill Carlyon, Chairman of the Department of Health Education of the American Medical Association, will be invited to attend and to participate in this meeting.

The Chairman expresses great appreciation to all members of the Nebraska Medical Association that have provided continuous support of health education in their local area. In addition, I want to express my appreciation to members of the Committee for their work in the promotion of health and fitness in the State of Nebraska.

Respectfully submitted,
S. I. FUENNING, M.D.
Chairman

REPORT OF THE AD-HOC COMMITTEE ON FEDERAL LEGISLATION

Jerald R. Schenken, M.D., Omaha, Chairman; C. J. Cornelius, Jr., M.D., Sidney; Louis J. Gogela, M.D., Lincoln; Harold R. Horn, M.D., Lincoln; Donald F. Prince, M.D., Minden; Gerald J. Spethman, M.D., Lincoln.

The Ad-Hoc Committee on Federal Legislation has reviewed a variety of bills and regulations and wishes to bring to the attention of the House of Delegates the following items of special interest.

1. S3239 (Medical Manpower Legislation). Legislation has passed the House and the Senate which, among other things, provides for a study of the costs and supply of chiropractors, a National Health Service Corps, a National Council on Postgraduate Physician Training which would study physician distribution and financial support for postgraduate physician training, establish model standards for licensure, relicensure, and continuing education as well as standards for satisfactory performance on such tests, establish grants for schools of medicine, osteopathy and dentistry which were related to student participation in the National Health Service Corps as well as residency allocation quotas in primary care, and to provide grants for other health professional schools including podiatry. The final outcome of this bill is at present unknown but it will have a marked effect on all of medicine including Nebraska.

2. HR14319 and S1637 (Clinical Laboratory Improvement Act of 1976). This act has passed the Senate and the House Committee on Interstate and Foreign Commerce. It provides for the extension of the Clinical Laboratory Improvement Act of 1967 to cover all laboratories interstate as well as intrastate. Intrastate laboratories have a two year grace period on standards. Rural hospital labs have a four year period before they must meet established personnel standards but will be required to assure the HEW that they will act to train their own personnel and hire qualified personnel in the future.

   Physicians' office laboratories will be exempted if they are operated by up to five such physicians, if they do only "routine" tests as defined by the HEW, and if they perform tests only on their own patients.

   Numerous other provisions effecting pathologists-directed independent and hospital laboratories have been included.

   It is important to note that any laboratory official as defined by the Act who engages in false billing for Medicare/Medicaid services may be subject to a $10,000 fine or imprisonment for one year or both.

   The House version has been amended to prevent the recognition by SSA of any commission, finder's fee, or rental or lease arrangement between a laboratory and a physician's office whereby the amount set for such fee is related to a percent of the laboratory charges or costs. This restriction is aimed at preventing alleged kickbacks to physicians for referring laboratory services.

   Although the Clinical Laboratory Improvement Act has not yet passed the House, it has many features which will have a profound impact on the practice of medicine in Nebraska.

3. S3205 (The 1976 Medicare/Medicaid Amendments Act). This comprehensive proposal with its companion bill in the House (HR12082) provided for a wide variety of amendments to the Medicare/Medicaid programs. These would include a number of provisions related to detection and punishment of fraud and abuse in the program as well as to alter the mechanisms by which hospitals and "hospital-associated physicians" are reimbursed. Hospitals would be classified on the basis of nationally established standards and prospective reimbursement would be ultimately mandated. Physicians would be compensated for only those services which they provide personally or under their personal direct and immediate supervision. Physicians would be encouraged to take assignment by a system of partial payments and premium payments.

   Hearings have been held on this bill and it received extensive opposition from numerous sources including the American Medical Association, the College of American Pathologists, the American Hospital Association, etc. The future of this bill is uncertain. If enacted it would have a profound and deleterious effect on medical practice!

4. S3801. Senator Talmadge has introduced his new Medicare/Medicaid antifraud bill, which is cosponsored by 39 other members of the Senate. This bill includes (from S3205) most of the provisions relating to fraud. It would provide for the establishment of a central fraud and abuse unit within the Department of HEW which would be responsible for initiating and conducting investigations with response to alleged, actual, or potential fraud or abuse in any of the programs as well as to assist state agencies in their anti-fraud and abuse activities.

   The bill would prohibit assignment by physicians and others of claims for their services to certain unethical "factoring" collection schemes. It would require disclosure of ownership and financial information relating to the provision of services including pathology laboratory services to the Department of HEW for the purpose of determining whether fraud or abuse occurred. It would change the penalty for defrauding Medicare and Medicaid from the present misdemeanor category to a felony punishable by up to five years imprisonment and $10,000 worth of fine. And finally, it would authorize PSRO review of ambulatory care in an effort to determine the degree of abuse, if any, present in such ambulatory services.

   The bill deserves our careful consideration. It is important that the Medicaid program, with all of its invitations to fraud, be cleaned up by insisting that the government implement the presently existing mechanisms for detection and prevention of fraud. It contains many features which will be of potential benefit to us all. However, the use of the word "abuse" with its inherent vagueness of definition is certain to cause trouble in the future, especially when the penalty for such abuse is a felony and conviction of a felony is cause for almost automatic medical licensure revocation in most states.

Attached is a portion of the staff report of the United States Senate Subcommittee on Long Term Care titled, Fraud and Abuse Among Practitioners Practicing in the Medicaid programs. It will be very helpful in understanding the background concerning the genesis of this legislation.

A 1976 Illinois state statute provides that "any person who agrees with an independent laboratory or hospital-run clinical laboratory to make payments to the laboratory for individual tests or test series for patients shall disclose on the bills to patients or their party payers the name of the laboratory, the amount or amounts charged by the laboratory for individual test or test series and the amount of his procurement and processing charges, if any, for each test or test series."

This disclosure provision has been a requirement by regulation for services provided to patients under the Medicare program since 1972. It is most certain to be included in the regulations related to the anti-fraud and abuse provisions of laws related to Medicare, Medicaid, or clinical laboratories. Physicians of the state should review this information carefully and make sure they meet all applicable federal and state requirements as they are developed.

Respectfully submitted,
JERALD R. SCHENKEN, M.D.
Chairman

Part 7

RECOMMENDATIONS

TO THE CONGRESS

(1) The fraud and abuse provisions of S. 3205, including establishing the Office of Inspector General in the Department of Health, Education, and Welfare, should be enacted immediately.

(2) Legislation should be enacted barring fee splitting and rental based on a percent of gross (or net) income between practitioners working in shared health facilities.

(3) Legislation to bar factoring in Medicare or Medicaid should be enacted.

TO THE DEPARTMENT OF JUSTICE

Efforts should be intensified to review and process Medicare and Medicaid fraud cases as soon as possible. This will involve the greater commitment of time, money, and resources; in short, giving cases some sense of priority.

TO THE INTERNAL REVENUE SERVICE

The Service should intensify its audits of hospitals, nursing homes, and of practitioners receiving $100,000 a year or more from Medicare or Medicaid.

TO THE TREASURY DEPARTMENT

The Treasury should scrutinize present Federal loans extended to the city of New York carefully. The Treasury should suggest that Medicaid reform is synonymous with fiscal reform.

TO THE DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

(1) The Department should enforce existing regulations with respect to fraud and abuse and withhold funds from those states which are not in compliance with these standards.

(2) The Department should intensify not only its efforts to assist the States in identifying fraud but should proceed to direct Federal efforts as well.

(3) The Program Integrity Unit, in the Bureau of Health Insurance, should be expanded.

(4) The Department should place all possible priority on helping New York establish an effective MMIS system.

(5) The Department should fund the pilot project to test competitive bidding of clinical laboratory services in the State of New York.

NEW YORK STATE

Legislature

(1) That the existing office of special prosecutor for health and social services be made a permanent, ongoing office by legislation. The legislation should give the special prosecutor all the current powers he has as a deputy attorney general and legislatively expand his jurisdiction to include any government agency, individual, or institution receiving moneys under titles I, XIV, XVIII, XIX, or XX of the Social Security Act. The legislation should mandate full cooperation of all State agencies and authorize access to any necessary computer resources and records, including those of the State department of taxation and finance.

(2) That the legislature pass the proposed amendment to article 28 of the Public Health Law (and accompanying amendments to the education and social services laws) so as to place "Medicaid mills" under the same regulatory requirements as are currently applied to nursing homes, hospitals, clinics, and other health care facilities.

(3) That the legislature abolish the existing office of welfare inspector general and use the moneys and investigative personnel to fund a special unit in the State Department of Social Services to investigate Medicaid practitioner fraud and abuse.

(4) That the legislature enact legislation prohibiting medical professionals from entering into percentage leasing arrangements and prohibiting financial participation by medical professionals in any percentage leasing facilities. The recently amended regulations of the department of education on percentage leasing should be used as guidance in drafting the legislation.

(5) That the legislature review, with the department of health, the necessity of having such "optional" Medicaid financed medical services as podiatry and chiropody at all, or at their current levels.

(6) That the legislature review, with the department of health and division of the budget, the current Medicaid fee schedules and make appropriate adjustments to correct any existing inequities, particularly in dentistry.

(7) That the legislature review, with the departments of health and social services, the existing Medicaid-only income eligibility level and the nature of Medicaid financed health care services actually being used by the MA-only population. This review should be done on a cost-benefit basis, accounting for both the governments

and the clients perspective, and recommend whether the MA-only category should be continued in New York and, if so, what "need" level should be used for eligibility.

(8) That the legislature amend the public health and education laws so as to streamline the current cumbersome and lengthy procedure for cases of alleged unprofessional conduct by medical professionals.

(9) That the legislature mandate data exchange on medical providers between the State departments of education, health, and social services, and between localities.

(10) That the legislature amend the public health and social services laws so as to make local commissioners appointees of the appropriate State agencies with specific minimum professional qualifications, to be developed by the respective State agencies and appropriate professional societies.

(11) That health be made the single State agency responsible for Medicaid providers. Section 364-a of the social services law should be revised to assign to social services the responsibility for Medicaid eligibility determination and all other aspects of responsibility for Medicaid clients. Health would be assigned all responsibility for claims processing and payments (now DSS functions) and the monitoring of provider fraud, abuse, and utilization review. Appropriate statutory changes should be made, approval obtained from HEW, and Civil Service should help expedite transfer of the persons involved in the payments process from the DSS to the health payrolls, at State and local levels, without any detriment to their job status.

Agencies

(1) That the departments of education, social services, and health, and the local agencies they "supervise," make a coordinated effort to implement education's new regulations prohibiting participation by medical professionals in percentage leasing arrangements or facilities.

(2) That the department of social services enforce its existing regulations requiring uniform accounting, record maintenance, and reporting procedures by localities, upon penalty of denying or withholding reimbursement.

(3) That the department of audit and control enforce the existing requirement of denying or withholding reimbursement to any local or State agency which does not have the supporting documentation necessary to verify Medicaid provider payment claims.

(4) That the State comptroller and attorney general take a more active role in safeguarding the public interest by overseeing the audit, cost control, and legal practices of all State agencies involved in the Medicaid and Medicare programs. That the city comptroller and corporation counsel take similar action as regards city agencies.

(5) That the State attorney general, U.S. Department of Justice, and HEW Counsel's office join the New York city corporation counsel, at least in an amicus capacity, in a concerted effort to reverse the court decision which has stayed implementation of the amendment to item 230 of the city's local medical plan.

(6) That New York City, and all other localities, be required to meet the existing requirements for patient and provider profiles and to do so by January 1, 1977. These profiles should be developed, as much as possible, in a uniform format so as to facilitate an integrated statewide profile system. The full resources of HEW and any other Federal or State agency with necessary computer resources should be made available. Any locality failing to meet the deadline should be subject to withholding of Federal and State reimbursement.

(7) That as soon as the patient and provider profiles are developed the localities should implement the use of a "monthly notice of services rendered" to each Medicaid recipient. This notice should parallel the one currently in use by Medicare. Proposals for implementing such a system should be ready by January 1, 1977.

(8) That there be a generic overhaul of the office of professional conduct, both in education and health, with particular emphasis on increasing the quantity and quality of staff and implementing a data and record maintenance system which provides adequate storage and timely retrieval of information. This overhaul should be ready for presentation in the forthcoming budget proposals to the Governor and legislature.

(9) That there be a generic overhaul of the New York City Health Department's Medicaid program with an emphasis on increasing staff size and requiring a quality legal and investigatory staff similar to that of the State special prosecutor's office. This staff overhaul should be accompanied by new procedures for the commencement and conduct of disciplinary proceedings in the program which will result in effective discipline and in cases which will withstand court challenge. This overhaul proposal should have a firm, but reasonable, implementation date, and should be ready for presentation to, and be given priority by, the mayor's office and the emergency financial control board this fall.

(10) That there be a generic overhaul of the New York City Department of Social Services' Division of Medical Payments with an emphasis on decreasing the number of clerical staff and establishing either a microfilm, microfiche, or equivalent nonmanual data storage and retrieval system. This overhaul proposal should have a firm, but reasonable, schedule for implementation, and should be ready for presentation to, and be given priority by, the mayor's office and emergency financial control board this fall.

(11) That the State immediately initiate an intensive audit of the use of Medicaid moneys at State-operated mental hygiene and drug rehabilitation facilities. The Governor should take an active role in making available from existing State agencies the manpower necessary to accomplish this task, and should establish a schedule of deadlines for the completion of the facility audits. An ongoing annual audit requirement for these facilities must be mandated.

(12) That the New York City Department of Health mount an immediate and intensive investigation of fraud and abuse at "Medicaid" pharmacies with a focus on the "exclusive franchise" arrangements with Medicaid mills. These arrangements violate Federal "freedom of choice" regulations for the Medicaid program. If necessary, the mayor should facilitate the temporary assignment of personnel from other city agencies (and appropriate district attorney offices) to accomplish this task.

(13) That New York City adopt a pilot program of competitive bidding on clinical laboratory services for Medicaid providers. This pilot program would give a cost-benefit analysis of lab costs and provide guidance for any necessary legislative or administrative correc-

tive action, including the possible adoption of a mandatory competitive bidding requirement. In an earlier report, the committee suggested that HEW fund such a pilot program, but HEW has not done so. HEW should fund a New York pilot program.

(14) That the health and social service departments effectively implement items 34 and 35 of the State medical handbook and meet the Federal requirements for filing timely and accurate fraud activity reports. Any locality which does not cooperate should be subjected to denial or withholding of appropriate Medicaid moneys as provided by law. HEW should take similar action against the State if they continue not to meet these requirements (The State has failed to meet the Federal requirements since their initiation in 1973).

(15) That the Governor immediately initiate an investigation of the ownership interests and collateral entrepreneurs in the "Medicaid mills" vis-a-vis financial interests, political influence, and unnecessary costs to the city. The investigative report should be presented to the Emergency financial control board, with recommendations for corrective action, by March 1977.

94th Congress }
2nd Session }
COMMITTEE PRINT

FRAUD AND ABUSE AMONG PRACTITIONERS PARTICIPATING IN THE MEDICAID PROGRAM

A STAFF REPORT

PREPARED FOR THE

SUBCOMMITTEE ON LONG-TERM CARE

OF THE

SPECIAL COMMITTEE ON AGING
UNITED STATES SENATE

AUGUST 1976

Printed for the use of the Special Committee on Aging

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APPENDIXES

Appendix 1

LIST OF PHYSICIANS IN INDIVIDUAL PRACTICE WHO RECEIVED MORE THAN $100,000 FROM MEDICAID DURING CALENDAR YEAR 1974

(Source: Department of Health, Education, and Welfare, Social and Rehabilitation Service)[1]

Name and Address	Amount paid by Medicaid	
	1974	1975
ALABAMA		
Carl E. Robinson, 1702 6th Ave., North, Bessemer 35020	$273,848.00	
ALASKA — None		
ARIZONA — None		
ARKANSAS — None		
CALIFORNIA		
C. Dotson, Jr., 3756 Santa Rosalia Dr., Los Angeles 90008	348,387.35	
Morris Adkins, 5510 Duarte St., Los Angeles 90008	285,659.30	
Tucker S. Edward, 1635 E. 103d St., Los Angeles 90002	254,692.42	
Sumner Bohee, 5911 South Avalon Blvd., Los Angeles 90003	237,933.17	
Edward Holden, 8475 West Vanness Ave., Inglewood	220,204.81	
Emilio Marquez, 4055 Whittier Blvd., Los Angeles	210,401.77	
Joel Smietana, 1336 Whittier Blvd., Montebello	114,169.52	
Mayor De Lilly, 1336 West Whittier Blvd., Montebello	114,506.61	
Myron Nathan, Century Park, East 1402, Los Angeles	113,039.00	
Howard Ragland, East Vernon Ave., Los Angeles	112,816.39	
Nicholas Braemer, 3400 Lomita Blvd., STE 204, Torrence	110,495.82	
Edward C. Lampley, 9925 East 14th St., STE 1, Oakland	110,442.15	
Peter Niciforos, 11502 South Vermont Ave., Los Angeles	185,666.79	
H. B. Van Maren, 4025 Webster St., Oakland	222,612.22	
M. Hakhmimi, 1161 Logan St., Los Angeles	194,333.96	
Robert S. Haglund, 10723 Ramona Blvd. STE B, El Monte	171,475.85	
Joanne Ewing, 1581 W. Adams Blvd., Los Angeles	150,840.17	
Lloyd T. Hunter, Jr., 3750 Santa Rosalie Dr., Los Angeles	148,970.43	
Daniel Solomon, 12095 West Washington, Los Angeles	161,947.70	
Ribton Wade, 791 Orchard Ave., Coachella	140,795.32	
Willie Brown, 302 Fresno St., STE 105, Fresno	139,806.53	
Lee Lawrence, Jr., McArthur Blvd., Oakland	138,650.08	
Gilbert Landis, 267 East Slayson Ave., Huntington Park	136,027.52	
Milton Woods, 12006 South Avalon, Los Angeles	136,010.08	
Clarence Littlejohn, Santa Rosalia Dr., Los Angeles	134,130.09	
Chester Barnes, 1625 East 4th St., Los Angeles	132,215.21	
Julian Mittledorf, 650 South Hobson Way, STE 104, Oxnard	129,819.91	
Jerry Fox, 234 Baker St., Bakersfield	129,413.27	
Noli Zosa, 8337 Telegraph Rd., STE 123, Pico Rivera	128,054.05	
Fred Parrott, 575 East Hardy St., STE 224, Inglewood	126,351.77	
Noel Smith, 302 Fresno St., STE 106, Fresno	125,028.28	
Howard Daniel, 9953 McArthur Blvd., Oakland	125,097.47	
Leonard Harris, 113 Santa Barbara Plaza, Los Angeles	122,735.12	
Arnold Peterson, 625 East Century Blvd., STE 3, Lynwood	120,425.77	
ILLINOIS		
Morton Miller, 3857 West Washington Blvd., Chicago	101,584.00	
Carlos Zalduendo, 5520 West Touhy Ave., P.O. 794, Skokie	101,534.00	
Harold Katzen, 1525 East 53d, Chicago	101,470.00	
Cornelio Ang, 904 West Belmont, Chicago	100,856.00	
Samy W. Ghali, 8447 South Racine, Chicago	100,579.00	
Rodolfo D. Bernal, 4708 West Addison, Chicago	100,428.00	
INDIANA		
David Chube, 1649 Broadway, Gary	210,195.00	$255,358.00
Ben F. Grant, X Assoc. 1, 1706 Broadway, Gary	101,599.00	
Theodore Espy, Gary		108,821.00
IOWA — NONE		
KANSAS — NONE		
KENTUCKY — NONE		

LOUISIANA

Forest M. Terral	159,950.00
Charles Fontenot	127,511.00
Odell Dean	126,511.00
John Coats	121,010.00
Albert Shiu	116,842.00
James Moorman	113,669.00
Ernest Cherrie	113,015.00

MAINE — None

MARYLAND — None

MASSACHUSETTS

Kabrcsky, 2595 Main St., Springfield	105,252.00
Walther Tayber	104,000.00

MICHIGAN

H. Parameswarappa, Westminister Medical Clinic P.D., 19431 Van Dyke, Detroit 48234	214,597.72
Sanford Polansky, 89 West Main St., Benton Harbor 49022	166,876.49
Aldrich M. Brooks, 17376 West Land Dr., Southfield 48075	121,945.94
J. Peter Johnson, Wm. Beaumont Hospital Royal Oaks, 3601 West 13 Mile Rd., Royal Oaks 48072	121,442.51
James P. Kitsos, Neighborhood Medical Clinic, 6303 Mack, Detroit 48207	115,244.12
Edith J. Lee, 150 Massachusetts, Highland Park	100,154.00
James Swad, 3558 Conner St., Detroit 48215	267,381.92
Clarence B. Williams, McClelland Street Clinic, 302 East McClelland St., Flint 48505	229,090.92
Marvin Goldberg, 16070 Sherfield, Southfield 48076	214,480.60
Bernard S. Arden, Arden Clinic P.C., 3434 Michigan Ave., Detroit 48216	160,160.25
Louis Amalfitano, Suite 404, 13700 Woodward, Highland Park 48203	121,985.24
Allan M. Ebert, Beecher Clinic P.C., G-6061 North Saginaw St., Mt. Morris 48458	112,065.66
John W. Thompson, 11751 Grand River, Detroit 48204	111,057.43
Ralph G. Sachs, 701 Medical Arts Bldg., 13700 Woodward, Highland Park 48203	109,599.43
Dudley W. Goefz, 14200 Puritan, Detroit 48277	104,002.30

MINNESOTA — None

MISSISSIPPI

Robert C. Tibbs II, Hospital Dr., Cleveland 38732	175,172.00
J. E. Warrington, Shelby Clinic, Shelby 38774	167,946.00
John G. Downer, 110 Tchula St., Lexington 39095	133,274.00
Travis Q. Richardson, 181 West Park Ave., Drew 38737	133,274.00
Julius L. Levy, 270 Yazoo Ave., Clarksdale 38614	126,584.00
A. E. Wood, Jr., P.O. Box 549, Belzoni 39038	123,238.00
Leroy Howell, Hospital Dr., Starkville 39759	114,880.00
J. Ed Hill, 301 East Ave., North, Hollandale 38748	106,559.00

MISSOURI — None

MONTANA — None

NEBRASKA — None

NEVADA — None

NEW HAMPSHIRE — None

NEW JERSEY

E. Garcia, 321 30th, Union City	135,791.00
B. B. Kaplan, 1815 Kennedy Blvd., Jersey City	116,971.00
V. H. Kaji, suite C 304 Medical Arts Bldg., 433 Belevue Ave., Trenton	121,886.00

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[1] This list was requested by the news media and HEW/SRS was required to make it available under the terms of the Freedom of Information Act. As HEW's accompanying press release states: The fact that these physicians received the stated amounts should not be construed as any evidence of wrongdoing, nor do the amounts listed necessarily represent "earnings" or "profits."

REPORT OF THE POLICY COMMITTEE

Harlan L. Papenfuss, M.D., Lincoln, Chairman; Arnold W. Lempka, M.D., Omaha; Warren G. Bosley, M.D., Grand Island; James H. Dunlap, M.D., Norfolk; John D. Coe, M.D., Omaha.

The Policy Committee presents this report to the Board of Councilors and House of Delegates. The consideration given and action taken on the various issues represents the activities of the committee since its last report to the House of Delegates at the Annual Session, 1976.

1. The legal action taken to establish the constitutionality of LB 434 was and is being directed and coordinated by the Policy Committee working with NMA legal Counsel. A mandamus action was filed in District Court in Lancaster County. The case was heard by District Judge, Samuel Van Pelt, on August 30. It is expected his decision will be announced momentarily. It is recognized the decision will then most probably be appealed to the Supreme Court by the losing side. It is still hoped that a favorable decision will be rendered by the Supreme Court in early 1977.

The NMA Headquarters Office is monitoring the applications for qualification under the statute and the payments being received by the Director of the State Department of Insurance. As of this date, 9/15/76, 428 physicians have complied with the provisions of the statute and over $200,000 has been received by the Department. The NMA has distributed numerous mailings to the membership specifying the three provisions that must be met for a physician to become qualified and take advantage of the provisions of the statute. Mainly: 1. Post a sign in your office waiting area indicating that you are under the law (the signs are available from the NMA). 2. Submit to the Director of Insurance a certificate signed by your insurance agent indicating that you have basic $100,000/$300,000 coverage, the premium charge for this coverage, the name of your carrier and the dates of coverage. 3. Forward a check payable to the Director of Insurance equal to 50% of the basic premium along with the above certificate of insurance.

2. The committee presented the State Board of Health with a list of nominees to complete the unexpired term of Doctor Frank H. Tanner on the Board of Examiners in Medicine and Surgery. Doctor John T. McGreer, III, of Lincoln was selected to fill the vacancy.

3. The Policy Committee recognized the need for better communication between the NMA and Nebraska's two medical schools. A letter of invitation was sent each school expressing this concern and requesting a representative be selected to meet with the NMA Policy Committee on a regular basis. Representatives from the medical schools now meet with the Policy Committee for a portion of each regular meeting for purposes of exchanging information of value to all parties.

4. The committee considered the matter of sponsorship of the Relative Value Study and at its meeting on June 17, 1976, determined that the new Relative Value Study would no longer be published by the Association and would be withdrawn from further sale. A special newsletter regarding this decision was distributed to the membership on June 25, 1976.

5. The Medical Education Committee of the Association forwarded its recommendation that the Nebraska Methodist Hospital's Continuing Medical Education Program be approved. The recommendation was approved by the Policy Committee on June 17, 1976. The committee feels this is a very important NMA activity and is gratified to find several Nebraska hospitals, specialty societies and voluntary health agencies have requested information regarding the requirements for certification to provide Category I programming for Nebraska physicians.

The committee also discussed the importance of the Physician's Recognition Award presented by the AMA. NMA members should be encouraged to review the application forms when received from the AMA and take advantage of the opportunity to apply for the award which is a recognition of the many hours physicians spend in continuing medical education activities.

The committee requests that arrangements be made so that Nebraska physicians may obtain Category I credit for attending the scientific sessions at the NMA Annual Meeting. This request is under study for implementation at an early date.

6. The committee's attention was drawn to the fact that the utilization of physician's assistants in Nebraska continues to increase. The committee took no formal action in this regard other than to agree that Nebraska physicians must be aware of the legal limitations applying to the physician's assistant. The Board of Examiners in Medicine and Surgery is responsible for monitoring this activity in the State of Nebraska.

7. The Policy Committee discussed in detail Resolution #17 passed by the House of Delegates in May, 1976. The subject matter of the resolution concerned physician reimbursement and fee establishment. As directed by the House, Legal Counsel was contacted for an opinion on the resolution. Legal Counsel recommended that the resolved portion of the resolution was appropriate and might properly be transmitted to third-party carriers. However, it was his opinion that the recital portion of the resolution did not necessarily reflect the situation currently existing in the State of Nebraska. The Policy Committee continues to study this matter and a definitive action will be taken in the near future.

8. The committee reviewed in considerable detail the current NMA committee structure. The committee reviewed the activities of each NMA committee and the wordage regarding each in the Constitution and By-Laws, and felt it would be beneficial to consider a structural change for the Association.

We have not finalized a recommendation for reorganization. However, at this point, it was felt beneficial to present a new structural concept to the House of Delegates for its reaction. The Policy Committee is recommending a "committee" structure comprised of seven councils. At this point, the councils would probably be: Council on Association Affairs, Council on Clinical Medicine, Council on Governmental Affiars, Council on Legislation and Legal Affairs, Council on Medical Education, Council on Peer Review, Council on Public Affairs. The NMA committees, as such, would be dissolved. Each council would have ad-hoc or interim committees to complete the various activities assigned to it by the House of Delegates or requested by the Policy Committee. The number of physicians who would comprise each council has not been determined however it is recognized that each council should have broad representation.

It is recommended that the NMA Board of Councilors and Policy Committee remain, but that consideration be given to eliminate the Board of Directors. The Policy

Committee would however, most probably be expanded in size to include the Speaker of the House and Chairman of the Board of Councilors. There would be a uniform limitation to terms of office for all members.

The House of Delegates would remain as at present to provide broad representation of the county medical society structure in the State of Nebraska.

The committee recognizes that a structural change such as this might not be acceptable to all physicians. However, in an effort to maintain and enhance the organizational effectiveness of the Nebraska Medical Association, it is felt a structural change is necessary. The committee recognizes that considerable change would need to be made in the Constitution and By-Laws. It will take several months to formulate a formal recommendation to be considered by the House of Delegates.

The Policy Committee, at this time, requests the approval of the House to proceed in restructuring the organization for greater efficiency and effectiveness and to provide a definitive proposal to the House at an early date.

Respectfully submitted,
HARLAN L. PAPENFUSS, M.D.
Chairman

REPORT OF THE AD-HOC COMMITTEE ON HOUSE ACTIONS

Harold S. Morgan, M.D., Lincoln, Chairman; R. E. Garlinghouse, M.D., Lincoln; Willis D. Wright, M.D., Omaha.

A copy of the previous actions of the House of Delegates has been prepared as per the request of the House of Delegates at their 1975 Fall Session meeting. A copy will be available for the Reference Committee considering this report, if desired.

Your committee therefore moves that the Ad-Hoc Committee on House Actions be dismissed.

Respectfully submitted,
HAROLD S. MORGAN, M.D.
Chairman

Report of Board of Councilors

The Fall Session of the Board of Councilors was held on September 30, 1976, at the Lincoln Hilton, Lincoln, Nebraska.

The following members of the Board of Councilors were present: Drs. Carlyle E. Wilson, Louis J. Gogela, H. C. Stewart, James G. Carlson, Warren R. Miller, Richard M. Pitsch, Clarence Zimmer, James Ramsay, Hiram Walker, Fred J. Rutt, Calvin Oba, Harlan Papenfuss, Arnold W. Lempka, and Warren G. Bosley.

The meeting was called to order by Dr. Bosley, temporary Chairman of the Board of Councilors. Dr. Bosley called for election of a Chairman of the Board. Dr. Wilson was nominated, and there being no further nominations, Dr. Wilson was elected as Chairman of the Board of Councilors.

Dr. Wilson then assumed chairmanship of the Board and called for election of a Secretary of the Board. Dr. Stewart was nominated, and there being no further nominations, Dr. Stewart was elected as Secretary of the Board of Councilors.

Dr. Wilson called for approval of the Annual Session minutes of the Board as printed in the July, 1976, issue of the Nebraska Medical Journal. These were approved as printed.

The reports and resolutions contained in the Handbook were then considered by the Board.

In considering the Report of the Executive Secretary, Mr. Neff commented further on the seminar in London on the British Health Care System. The Board felt that the House of Delegates should also have a further report on this seminar and that copies of the report should be made available to all physicians. The Board approved a motion that this be carried out.

In considering the Report of the Maternal and Child Health Committee, there was considerable discussion concerning the first sentence in the second paragraph regarding referral to the rather large number of maternal deaths in 1975. Dr. Bosley, a member of this committee, indicated that the reporting procedure was better than it had been in the past which could possibly account for the increase. It was moved that the Board of Councilors recommend to the House of Delegates that the language in this section of the report be changed to reflect the fact that the increase in the number of maternal deaths was due to the increased reporting procedures rather than the increase in maternal deaths. This was approved by the Board.

Following discussion of the Medical Service Report, Dr. Papenfuss gave an update on LB 434. The Board requested that this updated information also be given to the House. Dr. Papenfuss said that he would incorporate this update in his report to the House.

Dr. Stewart expressed his concern that the family practice program emphasized towns of 1,000 and over when the smaller towns should also be emphasized. Following discussion, the Board recommended that the Rural Medical Service Committee consider this matter.

In considering the Report of the Medical Education Committee, there was discussion concerning the fees charged for some of the postgraduate courses, some of which seemed rather high.

In considering the Report of the Policy Committee, Dr. Papenfuss gave an oral report on the items not covered in the report contained in the Handbook. This was a summary of actions taken on resolutions of the Annual Session, and will be in his report to the House of Delegates.

In considering Resolution #4, it was recommended that this resolution also be sent to the North Carolina Medical Society and to the Governor of the State of Nebraska.

In considering Resolution #6, it was also recommended that this resolution be sent to the Governor of the State of Nebraska and the North Carolina Medical Society.

Other reports and resolutions in the Handbook were discussed and referred to the House of Delegates for their consideration.

Dr. Wilson discussed the duties and responsibilities of the Board of Councilors, as outlined in the Constitution and By-Laws of the NMA, and a copy of this material was provided each Councilor. Dr. Wilson asked that these be studied and that the Councilors communicate any ideas they might have to him which would strengthen and expand the activities of the Board of Councilors.

There being no further business, the meeting was adjourned.

Report of House of Delegates

FIRST SESSION

The first session of the Fall Meeting of the House of Delegates was held at the Lincoln Hilton, Lincoln, Nebraska, on October 1, 1976. The meeting was called to order by the Speaker of the House of Delegates, Dr. Harry McFadden, Jr.

The call for a quorum showed 60 delegates seated, the House was declared in session.

Following the seating of delegates to replace official delegates unable to be present, the Chair called for oral reports and the following were presented:

Dr. Henry D. Smith — Director, State Department of Health

Dr. Harlan L. Papenfuss — President, Nebraska Medical Association

Following an Executive Session of the House of Delegates, the Chair called for approval of the Annual Session minutes of the House, as published in the Nebraska Medical Journal, July, 1976, issue. These were approved as printed.

Selection of Reference Committee members was read and approved by the House.

The following Reference Committee assignments were made:

Reference Committee #1

Ad-Hoc Committee on Federal Legislation
Resolution #1 — Greater Omaha — Personnel Standards for Hospital-Based Clinical Pathology Labs
Resolution #2 — Greater Omaha — Alleged Fraud and Abuse Among Practitioners Participating in the Medicaid Program
Resolution #3 — Greater Omaha — Opposition to Compulsory National Health Insurance

Reference Committee #2

Life Memberships — 50-Year Practitioners
Ad-Hoc Committee on PSRO
Policy Committee — Items #1 through #7
Delegate to the AMA
Maternal and Child Health
Relative Value Study
Nebraska Regional Medical Program

Reference Committee #3

Insurance and Prepayment Medical Care
Ad-Hoc Legal
Resolution #4 — Greater Omaha — Suit Against PL 93-641
Resolution #6 — Lancaster County — National Health Planning and Resources Development Act of 1974 (PL 93-641)
Resolution #7 — Lancaster County — National Health Planning and Resources Development Act of 1974 (PL 93-641)

Reference Committee #4

Board of Directors
Editor
Executive Secretary
Advisory to the Auxiliary
Medical Service
Constitution and By-Laws
Public Relations
Membership
Policy Committee — Item #8
Resolution #8 — Lancaster County — Report of Membership Committee, Fall Session, 1976
Resolution #5 — Cuming County — County Society Representation in House of Delegates

Reference Committee #5

Geriatrics
Medicine and Religion
Medical Education
Health Education in Schools and Colleges
Ad-Hoc Committee on House Actions

Resolution #9 was read to the House of Delegates by Dr. John Schenken, AMA Delegate, Subject: Opposition to Reintroduction of HR 6222 — 95th Congress. This resolution was referred to Reference Committee #1.

The Chair asked that the Remarks of the President and the minutes of the Board of Councilors be given to each Reference Committee.

An oral report was presented by Mr. Kenneth Neff, Executive Secretary, on the seminar in London on the British Health Care System.

Following announcements, the House was recessed until Saturday morning.

SECOND SESSION

The second session of the House of Delegates was held October 2, 1976. The meeting was called to order by the Speaker, Dr. McFadden.

A call for a quorum showed that 55 delegates were present, and the House was declared in session.

Dr. McFadden called for approval of the minutes of the first session of the House, and there were approved as printed.

Dr. Dan Nye was granted permission of the floor and commented regarding mandatory re-examination for licensure and noted that some states are requiring continuing medical education for society membership. He also called attention to the Health Manpower Bill, Title VII, requiring standards for licensure of physicians and dentists. He called attention to the need for Peer Review Committees to seek the questionable medical practice in their hospitals and that such information should be sent in abstract form to the State Licensing Board. He suggested that some direction by the Association be given to the Board of Examiners on this subject.

Reference Committee reports were called for and the following were presented:

Reference Committee #1

Reference Committee #1 considered two reports and four resolutions, in addition to the Remarks of the President.

(1) REPORT OF THE BOARD OF COUNCILORS
REMARKS OF THE PRESIDENT

No comments or recommendations were heard regarding the report of the Board of Councilors or the Remarks of the President.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF THE AD-HOC COMMITTEE ON FEDERAL LEGISLATION

The report was reviewed. Discussion of the second section regarding the pending Clinical Laboratory Improvement Act of 1976, brought out that office laboratories of groups of six or more physicians would be affected. Under Part IV, regarding the Talmadge Medicare/Medicaid anti-fraud bill, the parameters of what constitutes fraud and abuse were not well defined. However, it should be noted that the penalty for violations will be considered as a felony punishable by up to five years in prison or a $10,000 fine rather than considered as a misdemeanor as it is at present. It was further noted that the commission of a felony in the State of Nebraska is the cause for license revocation.

Particular attention was directed to the requirement by regulation for services provided to patients under the Medicare program of 1972, which requires that a patient's billing itemize and disclose, on the bills to the patients or their third-party payors, the name of the laboratory, amounts charged by the laboratory for individual tests or series of tests and the amount of the physicians procurement and processing charges for each test or test series when an outside, independent laboratory or hospital-run clinical laboratory was utilized. It was evident this was not clearly understood by some members of the Nebraska Medical Association.

Recommendations:

Your Reference Committee recommends acceptance of the report of the Ad-Hoc Committee on Federal Legislation. Your Reference Committee also recommends that the Nebraska Medical Association bring the billing requirements to the attention of the members of the Association.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) RESOLUTION # 1 — Greater Omaha — Personnel Standards for Hospital-Based Clinical Pathology Laboratories

Discussion centered primarily on the meaning of rigid personnel standards. It is intrepreted to mean that the personnel shall have obtained the status of a registered medical technologist. This resolution reads as follows:

WHEREAS, personnel standards for the director and supervisory personnel have been promulgated by regulation since the Clinical Laboratory Improvement Act of 1967, applicable to laboratories accepting interstate referral specimens, and

WHEREAS, personnel standards have been in effect for independent laboratories under Medicare for several years, and

WHEREAS, the College of American Pathologists has opposed rigid personnel standards below the level of the supervisor, and

WHEREAS, a number of proposals presently exist in Congress as well as in bureaus and departments within the Department of Health, Education, and Welfare for the development of rigid personnel standards for all levels of laboratory personnel; therefore be it

RESOLVED, that the Nebraska Medical Association is opposed to rigid personnel standards for all levels of laboratory personnel below the level of supervisor, and be it further

RESOLVED, that the Nebraska Medical Association urge all who are responsible for developing personnel standards for clinical pathology laboratories, both governmental and non-governmental to give careful consideration to the impact of such proposals on the quality and quantity of medical care available to our citizens, especially as pertains to small and/or rural hospitals and laboratories, and be it further

RESOLVED, that a copy of this resolution be forwarded to all Nebraska Congressional candidates and incumbents.

Recommendation:

Your Reference Committee recommends acceptance of Resolution #1.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) RESOLUTION #2 — Greater Omaha — Alleged Fraud and Abuse Among Practitioners Participating in the Medicaid Program

Resolution #2 was reviewed by your Reference Committee and reads as follows:

WHEREAS, it has been alleged that fraud and abuse is widespread among practitioners participating in the Medicaid program, and

WHEREAS, Senator Talmadge has stated "while the large majority of doctors, hospitals, and others are honest, it should be noted that those who practice fraud and abuse receive a disproportionate amount of payments," and

WHEREAS, the providers who have allegedly committed fraudulent activities relating to the Medicare and Medicaid programs are often lumped in groups, including not only doctors of medicine, but osteopaths, podiatrists, psychologists, chiropractors, dentists, pharmacists, etc., making it difficult for the medical profession to determine whether or not their members are accused and/or convicted of fraudulent activities, and

WHEREAS, the staff report of the Subcommittee on Long Term Care, United States Senate Committee on Aging has recommended that the Department of Health, Education, and Welfare should enforce the existing regulations with respect to fraud and abuse; therefore be it

RESOLVED, that the House of Delegates of the Nebraska Medical Association support the recommendation that existing regulations with respect to fraud be enforced and that those providers so accused be afforded the protection of due process under the law until exonerated or convicted, and be it further

RESOLVED, that the House of Delegates of the Nebraska Medical Association reaffirm their opposition to fraudulent medical activities whether they be associated with the Medicare or Medicaid programs or not, and be it further

RESOLVED, that the House of Delegates of the Nebraska Medical Association support substitute Resolution #18, (A-76) adopted by the American Medical Association which states:

> "The American Medical Association condemns and deplores all acts of fraud and wrong-doing, including in particular any wrongful acts as recently reported in the Medicaid and Medicare programs. We urge that responsible government agencies proceed with all due speed in the prosecution under the provisions of due legal process of all who are charged with guilt and fraudulent misconduct. We will continue to offer

our cooperation and assistance in bringing to an end such activities.", and be it further

RESOLVED, that a copy of this resolution be forwarded to all Nebraska Congressional candidates and incumbents.

Recommendation:

Your Reference Committee recommends acceptance of this resolution.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(5) RESOLUTION #3 — Greater Omaha — Opposition to Compulsory National Health Insurance

Resolution #3 was discussed without dissent, and this resolution reads as follows:

WHEREAS, the Nebraska Medical Association House of Delegates at the May, 1976, Session, was polled as to whether or not they favored or opposed compulsory National Health Insurance, and

WHEREAS, all but one member indicated opposition, and

WHEREAS, 90% of the citizens of this country already are covered by some form of health insurance or have adequate finances to pay for health care, and

WHEREAS, government programs, particularly Medicaid, provides for medical services for their citizens who are unable to provide for themselves; therefore

BE IT RESOLVED, that the Nebraska Medical Association is opposed to any compulsory National Health Insurance program in any form, and

BE IT FURTHER RESOLVED, that this resolution be sent to all the Nebraska Congressional candidates and incumbents.

Recommendation:

Your Reference Committee recommends the acceptance of this resolution.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(6) RESOLUTION #9 — Dr. John R. Schenken — Opposition to Reintroduction of HR 6222 — 95th Congress

Resolution #9 was discussed in length, and reads as follows:

WHEREAS, HR 6222, the AMA-sponsored National Health Insurance, dies a natural legislative death when the 94th Congress adjourns, and

WHEREAS, HR 6222 has been an albatross around the neck of the AMA when it attempts to oppose politically-sponsored National Health Insurance, and

WHEREAS, any National Health Insurance is compulsory and, regardless of its original form, inevitably becomes more restrictive on the freedom of all Americans as well as the medical profession, and

WHEREAS, the Medicaid mess, the burgeoning Medicare regulations, the proposed Medicare-Medicaid Reimbursement Act, the Manpower Act and the Comprehensive Planning Act should be warning signals that the Federal government is content only with expansion of its controls over all Americans; therefore be it

RESOLVED, that no new National Health Insurance legislation, such as HR 6222 be introduced into the 95th Congress by the AMA.

Recommendation:

Your Reference Committee recommends acceptance of the resolution with the following addition:

BE IT FURTHER RESOLVED, that the past recommendations of the AMA, the existing high quality of the medical care system and the present local and national legislation on health care are adequate to meet the medical care needs of the American people and that a continued effort be made to maintain this high level of medical care at reasonable costs.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was seconded and discussion followed. The motion was made to delete the word "new" in the first RESOLVED of the resolution, and that in the recommended additional RESOLVED of the Reference Committee, the words "has fostered" be inserted after ". . . recommendations of the AMA." This last RESOLVED would then read:

BE IT FURTHER RESOLVED, that the past recommendations of the AMA has fostered the existing high quality of the medical care system and the present local and national legislation on health care are adequate to meet the medical care needs of the American people and that a continued effort be made to maintain this high level of medical care at reasonable costs.

This amendment was approved by the House, and this section of the Report of Reference Committee #1 was approved as amended.

MR. SPEAKER, I MOVE THE ADOPTION OF THE REPORT OF YOUR REFERENCE COMMITTEE #1 AS A WHOLE AS AMENDED. This was approved by the House.

Respectfully submitted,
Stanley M. Truhlsen, M.D., Omaha,
Chairman
Kenton L. Shaffer, M.D., Kearney
Robert C. Weldon, M.D., Nebraska City

Reference Committee #2

Your Reference Committee #2 considered seven reports along with applicable portions of the Report of the Board of Councilors and Remarks of the President. Your Reference Committee submits the following report and recommendations.

(1) REPORT OF THE DELEGATE TO THE AMERICAN MEDICAL ASSOCIATION, ANNUAL SESSION

The author of the report was present and the report was discussed.

Recommendation:

Your Reference Committee recommends acceptance of the report.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF THE MATERNAL AND CHILD HEALTH COMMITTEE

The report of the Board of Councilors recommended that the language in the second paragraph which reads: "Concern was expressed over the rather large number of maternal deaths in 1975.", be changed. Testimony before your Reference Committee indicated there was an increase in the number of **reported** maternal deaths in 1975. Although there may have been an actual increase in the number of maternal deaths in 1975, part of the reported increase was due to changes in reporting procedures. For example, all deaths occurring within three months of termination of pregnancy are now reported. Actual analysis of the raw data provided by the committee indicates that only six of the reported 13 "maternal" deaths were directly related to pregnancy. It was also noted that in some of the obstetrical deaths, a physician was never in attendance.

MCH committee members also stressed the need for a more detailed questionnaire and a mechanism for anonymous review of pertinent records. The committee expressed the desire to await the deliberations of a regional maternal mortality review conference before coming forth with specific recommendations.

Recommendations:

1. Change the first sentence in the second paragraph to read, "Concern was expressed over the reported increase of maternal deaths in 1975."

2. Instruct the committee to submit specific recommendations for reviewing maternal deaths in Nebraska between the conclusion of the regional maternal mortality review conference and the next following session of the House of Delegates.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) REPORT OF THE RELATIVE VALUE STUDY COMMITTEE

In response to the decision of the Policy Committee on June 17, 1976, to no longer publish the Relative Value Study, the Relative Value Study Committee announced its intention to become inactive. The committee recognized a continued need, however, for an updated coding system. The House of Delegates had previously accepted the Current Procedural Terminology (published by the AMA) as its official procedural terminology.

Recommendations:

Your Reference Committee makes the following recommendations:

1. That the Constitution and By-Laws of the Nebraska Medical Association be revised so that the Relative Value Study Committee no longer exists.

2. That the Current Procedural Terminology (published by the AMA) be kept current as an administrative function by the Executive Staff of the Nebraska Medical Association.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) REPORT OF THE AD-HOC COMMITTEE ON PSRO

It was again pointed out that PSRO is a cost control program and not a quality control program. No new courses of action were recommended to your Reference Committee.

Recommendations:

Your Reference Committee recommends acceptance of this report with the following recommendations:

1. That the House of Delegates underscore the statement in the report that "PSRO continues to be a cost control program rather than a quality control program."

2. That the House of Delegates direct the Ad-Hoc Committee on PSRO to remain intact and continue to monitor developments in this field and report its findings to the next session of the House of Delegates.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(5) REPORT OF THE POLICY COMMITTEE, ITEMS 1 THROUGH 7

Item 4 of the report of the Policy Committee contained in the Handbook was considered under the report of the Relative Value Study Committee.

Item 7 of the report of the Policy Committee was the only other item discussed before Reference Committee #2. Testimony indicated unequivocal support of the RESOLVED portion of Resolution #17, which held that each physician has a right to establish his own fees and that no third party should be allowed to establish fees based on geographic or other areas. The report of the Policy Committee noted that legal counsel was of the opinion that certain aspects of the recital portion of the resolution did not necessarily reflect the situation currently existing in the State of Nebraska. The Policy Committee indicated that the matter was still under study and definitive action would be taken in the near future.

Recommendations:

Your Reference Committee makes the following recommendations:

1. That the RESOLVED portion of Resolution #17 be reaffirmed.

2. That the intent of the RESOLVED portion of Resolution #17 be communicated to appropriate third parties.

3. That Items 1, 2, 3, 5 and 6 of the report of the Policy Committee be approved.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(6) LIFE MEMBERSHIPS — FIFTY-YEAR PRACTITIONERS

Your Reference Committee considered the following members for recognition as fifty-year practitioners:

Buffalo County — Hodson A. Abbott, M.D., Minden
Dawson County — Oliver P. Rosenau, M.D., Cozad
Gage County — Robert W. Taylor, M.D., Beatrice
Lincoln County — Orval C. Kreymborg, M.D., North Platte
Greater Omaha — Howard B. Hunt, M.D., Omaha
Washington-Burt — Arnold J. Mullman, M.D., Yuma, Ariz.
York County — Robert E. Harry, M.D., York

Your Reference Committee considered the following members for life membership:

Cheyenne-Kimball-Deuel — Hull Cook, M.D., Sidney
Hall County — Wm. McGrath, M.D., Grand Island
Lancaster County — George E. Stafford, M.D., Lincoln; F. S. Webster, M.D., Lincoln
Greater Omaha — A. C. Fellman, M.D., Omaha
Cecil L. Wittson, M.D., Omaha

Recommendation:

Your Reference Committee recommends that the above applicants for fifty-year practitioner recognition and life membership be approved.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(7) REPORT OF THE NEBRASKA REGIONAL MEDICAL PROGRAM

This report evoked many poignant recollections of past events in this moribund program. The discussants felt a particular desire to applaud those members of the Nebraska Medical Association who labored so long and hard in an effort to breathe life into a federally funded program which was doomed to be swallowed whole by an incomprehensible monster known as the National Health Planning and Resources Development Act of 1974 (PL 93-641).

Recommendations:

1. That the report of the Nebraska Regional Medical Program be accepted for informational purposes.

2. That the House of Delegates quietly applaud the many Nebraska physicians who worked so diligently at making the Nebraska Regional Medical Program a positive force.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

MR. SPEAKER, I MOVE THE ADOPTION OF THE REPORT OF YOUR REFERENCE COMMITTEE #2 AS A WHOLE. This was approved by the House.

Respectfully submitted,
John F. Porterfield, M.D., Lincoln, Chairman
Gordon D. Francis, M.D., Grand Island
Robert B. Benthack, M.D., Wayne

Reference Committee #3

Reference Committee #3 considered two reports and three resolutions in addition to select portions of the President's Remarks and the report of the Board of Councilors.

(1) REPORT OF THE INSURANCE AND PREPAYMENT MEDICAL CARE COMMITTEE

The Insurance and Prepayment Medical Care Committee report was received and reviewed. There was no discussion of this report.

Recommendation:

Your Reference Committee recommends adoption of this report as published.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF THE AD-HOC LEGAL COMMITTEE

Recommendations:

Your Reference Committee heard considerable discussion concerning this report and recommends amending the report as follows:

1. In point #3, delete the two sentences beginning with the word "Additionally" and ending with the word "himself." Substitute therein the following:

"The committee recommends a screening analysis of individual cases to determine their potential for countersuit action. Should such cases of merit be identified recommendations will be made to the Policy Committee for approval of a proposed course of action relative to the selected case prior to the initiation of such measures."

2. In point #4, in the first sentence, add the words "and supporting" between the words "analyzing" and "both."

With these amendments and additions, your Reference Committee recommends acceptance of the ad-hoc committee report and its proposed action.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) RESOLUTION #4 — Greater Omaha — Suit Against PL 93-641
RESOLUTION #6 — Lancaster County — National Health Planning and Resources Development Act of 1974 (PL 93-641)
RESOLUTION #7 — Lancaster County — National Health Planning and Resources Development Act of 1974 (PL 93-641)

These resolutions were considered together in that they all dealt with PL 93-641, and read as follows:

Resolution #4

WHEREAS, the North Carolina Medical Society and the American Medical Association has instituted Federal litigation seeking declaration of the unconstitutionality of PL 93-641 (The National Health Planning and Resources Development Act of 1974), and

WHEREAS, the State of Nebraska has now shown a desire to enter the lawsuit in an effort to further substantiate the unconstitutionality of the Act, particularly in the area which allows the Department of Health, Education and Welfare to institute Health Service Areas (six in Nebraska, instead of the requested three); therefore

BE IT RESOLVED, that the Nebraska Medical Association support the position of the State of Nebraska, the American Medical Association and the North Carolina Medical Society in their judicial action against the Federal Government, and

BE IT FURTHER RESOLVED, that this resolution be sent to all the Nebraska Congressional candidates and incumbents.

Resolution #6

WHEREAS, on June 23, 1976 the Southeast Nebraska Health Planning Council and the Southeast Nebraska Health Systems Agency in Lincoln, Nebraska voted to not approve an application for federal grant money to finance an HMO Planning Grant, and

WHEREAS, on August 12, 1976 plans to develop an HMO in Omaha, Nebraska were dropped because insurance premiums would have been too high to compete with traditional insurance premiums, and

WHEREAS, the decision to discontinue the above was determined after four years of study and the expenditure of $255,000 federal grant money, and

WHEREAS, on August 20, 1976 the DHEW (Kansas City, Missouri) did in fact approve the HMO Planning Grant for Lincoln, Nebraska, and

WHEREAS, this action on the part of the DHEW disregards and ignores completely the considered decision and recommendations of a local agency and instead imposes unilaterally its own will in contradiction to directed operative procedure, and

WHEREAS, this action indicates the awesome powers held by the DHEW under the National Health Planning and Resources Development Act of 1974 (PL 93-641);

THEREFORE BE IT RESOLVED, that this action be entered as another instance of unconstitutionality under the National Health Planning and Resources Development Act of 1974 (PL 93-641) and that it be submitted as evidence in the declaratory judgment to be entered by the District Court in Raleigh, North Carolina in enjoining the Secretary of DHEW from implementing PL 93-641, and

BE IT FURTHER RESOLVED, that this action of the Nebraska Medical Association be forwarded to the Nebraska Delegation of the House of Representatives and the Senate of the United States and to the American Medical Association.

Resolution #7

WHEREAS, on June 23, 1976 the Southeast Nebraska Health Planning Council and the Southeast Nebraska Health Systems Agency in Lincoln, Nebraska voted to not approve an application for federal grant money to finance an HMO Planning Grant, and

WHEREAS, on August 20, 1976 the DHEW (Kansas City, Missouri) did in fact approve the HMO Planning Grant for Lincoln, Nebraska, and

WHEREAS, this action indicates the awesome powers held by the DHEW under the National Health Planning and Resources Development Act of 1974 (PL 93-641), and

WHEREAS, this action raises serious questions as to the constitutionality of PL 93-641, and

WHEREAS, the American Medical Association, the North Carolina Medical Society, the states of North Carolina and Nebraska, for reasons similar to the above, have entered into a lawsuit in the U.S. District Court of North Carolina to challenge the constitutionality of the National Health Planning and Resources Development Act of 1974 (PL 93-641), and

WHEREAS, the District Court in Raleigh, North Carolina has been asked to enter a declaratory judgment that the National Health Planning and Resources Development Act of 1974 (PL 93-641) violates the United States Constitution; that the Court enter a permanent injunction enjoining the defendant Secretary of DHEW, his agents and employees, or any other person acting under or in concert with him or DHEW from implementing, enforcing or otherwise accomplishing the purposes and objectives of the National Health Planning and Resources Development Act of 1974 (PL 93-641);

THEREFORE BE IT RESOLVED, that the Nebraska Medical Association support the State of Nebraska in furthering this litigation and that this resolution be forwarded to President Ford, Governor Exon, the Secretary of DHEW and each member of the United States Senate and the House of Representatives.

Recommendation:

Your Reference Committee offers a substitute resolution to replace Resolutions #4, #6, and #7, which it believes incorporates the salient points of these three. The substitute resolution reads as follows:

WHEREAS, on August 12, 1976, plans to develop an HMO in Omaha, Nebraska, were dropped because insurance premiums would have been too high to compete with traditional insurance premiums, and

WHEREAS, the decision to discontinue the above was determined after four years of study and the expenditure of $255,000 federal grant money, and

WHEREAS, on June 23, 1976, the Southeast Nebraska Health Planning Council and the Southeast Nebraska Health Systems Agency in Lincoln, Nebraska, voted to not approve an application for federal grant money to finance an HMO planning grant, and

WHEREAS, on August 20, 1976, the DHEW (Kansas City, Missouri) despite the Omaha HMO action, did in fact approve the HMO planning grant for Lincoln, Nebraska, and

WHEREAS, this action on the part of DHEW disregards and ignores completely the considered decisions and recommendations of a local agency and instead imposes unilaterally its own will in contradiction to directed operative procedures, and

WHEREAS, this action indicates the awesome powers held by the DHEW under the National Health Planning and Resources Development Act of 1974 (PL 93-641), and

WHEREAS, this action raises serious questions as to the constitutionality of PL 93-641, and

WHEREAS, the American Medical Association, the North Carolina Medical Society, the states of North Carolina and Nebraska, for reasons similar to the above, have entered into a lawsuit in the U.S. District Court of North Carolina to challenge the constitutionality of the National Health Planning and Resources Development Act of 1974 (PL 93-641), and

WHEREAS, the District Court in Raleigh, North Carolina has been asked to enter a declaratory judgment that the National Health Planning and Resources Development Act of 1974 (PL 93-641) violates the United States Constitution; that the Court enter a permanent injunction enjoining the defendant Secretary of DHEW, his agents and employees, or any other person acting under or in concert with him or DHEW from implementing, enforcing or otherwise accomplishing the purposes and objectives of the National Health Planning and Resources Development Act of 1974 (PL 93-641); therefore be it

RESOLVED, that the Nebraska Medical Association support the position taken by the State of Nebraska in furthering this litigation and this resolution be forwarded to the President of the United States, the Governor of the State of Nebraska, the Secretary of DHEW, each member of the United States Senate and the House of Representatives, the North Carolina Medical Society, the American Medical Association and to the Presidents of all State Medical Societies.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

MR. SPEAKER, I MOVE THE ADOPTION OF THE

REPORT OF YOUR REFERENCE COMMITTEE #3 AS A WHOLE. This was approved by the House.

Respectfully submitted,
James H. Dunlap, M.D., Norfolk, Chairman
Frederick F. Paustian, M.D., Omaha
Alvin A. Armstrong, M.D., Scottsbluff

Reference Committee #4

Reference Committee #4 considered nine reports and two resolutions. The Reference Committee submits the following report and recommendations.

(1) REPORT OF THE ADVISORY TO THE AUXILIARY COMMITTEE

Recommendation:

The report of the Advisory to the Auxiliary Committee was reviewed, and it was recommended that the report be approved as published.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF THE MEDICAL SERVICE COMMITTEE

Recommendation:

The Medical Service Committee report was reviewed, and it is the recommendation of your Reference Committee that it be accepted for informational purposes.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) REPORT OF THE CONSTITUTION AND BY-LAWS COMMITTEE

Recommendation:

The report of the Constitution and By-Laws Committee was reviewed, discussion occurred and it was the consensus of those testifying to this report that the recommendations of the Constitution and By-Laws Committee be approved.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) REPORT OF THE PUBLIC RELATIONS COMMITTEE

Recommendation:

The Public Relations Committee report was accepted, and it is the recommendation of the Reference Committee that this report be adopted as published. During the discussion which ensued on this report, it was pointed out that the various committees of our medical society might better utilize the Public Relations Committee to better advantage.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(5) REPORT OF THE MEMBERSHIP COMMITTEE RESOLUTION #8 — Lancaster County — Report of the Membership Committee, Fall Session, 1976

The Membership Committee report and Resolution #8 were considered together. Resolution #8 read as follows:

WHEREAS, the report of the Membership Committee indicates the extreme importance of organized medicine having a united membership, and

WHEREAS, this report indicates that an action of solicitation of a united membership is to be developed, and

WHEREAS, it is very important to have the cooperation of the membership of the Nebraska Medical Association in regard to the above;

THEREFORE BE IT RESOLVED, that the House of Delegates of the Nebraska Medical Association endorse this report and that the Nebraska Medical Association implement the report as soon as is reasonably possible.

Recommendation:

It is the consideration of your Reference Committee that the report be accepted for informational purposes, and it is the recommendation of the Reference Committee that Resolution #8 be adopted as presented.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(6) POLICY COMMITTEE REPORT, ITEM #8

Recommendation:

The Policy Committee report, Item #8, was discussed in Reference Committee at some length and the vast majority of those commenting were in favor of the reorganization of the Nebraska Medical Association. Some individuals suggested that the checks and balances inherent in the current organization should not be overlooked when the purpose of reorganization is accomplished. Your Reference Committee moves for approval of this particular section of the Policy Committee report.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(7) RESOLUTION #5 — Cuming County — County Society Representation in the House of Delegates

Resolution #5 introduced by the Cuming County Medical Society, the subject of which is the county society representation in the House of Delegates, read as follows:

WHEREAS, Cuming County Medical Society as an official and recognized society in Nebraska has only four members, they are denied representation in the House of Delegates, and

WHEREAS, it is not possible or expedient for the four members to travel 40 miles to join neighboring medical groups, and

WHEREAS, there are about four other medical societies in the same position; therefore

BE IT RESOLVED, that the House of Delegates consider changes in requirements and recognize one delegate from the officially organized or recognized medical societies when membership is below five. This would not alter the Lincoln and Omaha ratio nor the ratio of one delegate per five members over five.

Recommendation:

No one appeared before the Reference Committee in support of this measure. Since the problem addressed by this resolution might be better approached during the proposed reorganization of the Nebraska Medical Association, it was the consensus of the assembled that this resolution should not be adopted at this time.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(8) REPORT OF THE BOARD OF DIRECTORS

Recommendation:

The Board of Directors report was received, and it was the consensus that the report should be approved as published.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(9) REPORT OF EDITOR, NEBRASKA MEDICAL JOURNAL

Recommendation:

The report of the Editor of the Journal of the Nebraska Medical Association was received and the consensus was that it should be approved as published.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(10) REPORT OF THE EXECUTIVE SECRETARY

Recommendation:

The report of the Executive Secretary of the Nebraska Medical Association was received, and it was the consensus that it should be approved as published.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

MR. SPEAKER, I MOVE THE ADOPTION OF THE REPORT OF YOUR REFERENCE COMMITTEE #4 AS A WHOLE. This was approved by the House.

Respectfully submitted,
John T. McGreer, III, M.D., Lincoln, Chairman
Richard E. Donaldson, M.D., North Platte
Michael J. Haller, M.D., Omaha

Reference Committee #5

Reference Committee #5 considered six reports including the Ad-Hoc House Action Review. Reference Committee #5 submits the following report and recommendations.

(1) REPORT OF THE GERIATRICS COMMITTEE

Recommendation:

Limited discussion of this report was occasioned in the Reference Committee. The Reference Committee recommends continued liaison between the Geriatrics Committee and the Nebraska Commission on Aging Advisory Panel, and others with concern in the geriatric area, and acceptance of the committee report with thanks.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(2) REPORT OF THE MEDICINE AND RELIGION COMMITTEE

Recommendation:

Testimony favorable to the Sunday evening format of the annual Medicine and Religion dinner was received by your Reference Committee. We recommend that the committee continue its efforts in this particular regard and additionally recommend acceptance of its report.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(3) REPORT OF THE HEALTH EDUCATION COMMITTEE

Recommendations:

1. Considerable discussion was heard relative to the merit of the School Health Curriculum Project (Berkely Project) and long term benefits which may accrue to Nebraska through evolvement of citizens possessing greater health knowledge. Structured programs of education in the health area as will be implemented in Wahoo seem worthy of our interest and we recommend support of endeavor in this area, and would appreciate reports to the House of progress.

2. Majority testimony was received in favor of support of the Health Gallery Project and your Reference Committee joins in recommending the support of the House in this endeavor.

3. Your Reference Committee wishes to thank the Committee on Health Education for ongoing effort and interest and would urge the cooperation of Nebraska physicians generally in support of health education effort throughout the state.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(4) REPORT OF THE AD-HOC COMMITTEE ON HOUSE ACTIONS

This report was reviewed and admired as a succinct, precise resume of previous deliberations of the NMA House of Delegates. It will undoubtedly provide a valuable reference for timely recall in future deliberations.

Recommendation:

Your Reference Committee recommends acceptance of this report and that appreciation be expressed to the committee members responsible for its compilation.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(5) REMARKS BY THE PRESIDENT

Recommendation:

This report was received and discussed with interest. Your Reference Committee recommends acceptance of these remarks in toto.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

(6) REPORT OF THE BOARD OF COUNCILORS

The report of the Board of Councilors was reviewed. Citation of problems of interest to various other committees of the NMA was promulgated.

Recommendations:

1. Congratulations to Dr. Carlyle Wilson as the new Chairman of the Board of Councilors.

2. Our thanks for the research and report on the British NHS by Mr. Neff.

3. Concurrence of the House on transmittal of the substitute resolution concerning National Health Planning and Resources Development Act of 1974 (PL 93-641) to our Governor and the North Carolina Medical Society.

MR. SPEAKER, I MOVE THE ADOPTION OF

THIS SECTION OF OUR REPORT. This was approved by the House.

(7) REPORT OF THE MEDICAL EDUCATION COMMITTEE

Prolonged discussion was forthcoming in the Reference Committee on virtually all areas embodied by this report.

Interest was expressed by delegates present that NMA forthwith obtain accreditation for Category I credit for attendance at Scientific Sessions of the NMA. Testimony was heard to the effect that accreditation of continuing medical education programs can be obtained by fulfilling survey criteria and a modest fee of $150, on a one time basis. This would seem to place such programs within the reach of some rural hospitals and county medical societies and might obviate the necessity for the rural physician to travel many miles and incur considerable expenses to participate. Great stress was properly cited relative to the difficulty of the solo practitioner who cannot obtain coverage of his practice to allow such activity.

The lack of response from specialty organizations and others queried regarding input to CME is disappointing, however, questions were raised as to the manner in which this input was sought and comment was received that perhaps further communicative effort on the part of the committee might be tried. A survey similar to that conducted by the Health Planning Committee on referral patterns of Nebraska physicians might provide greater response. Such an instrument might be structured to provide worthy guidelines for CME programs pertinent to the Nebraska physician and his needs.

Rather great discussion and testimony was received regarding the relevance of CME activity, and content of current CME courses, relative to day-to-day practice. An effort to mortise continuing medical education and a majority of clinical problems, which may benefit Nebraskans generally would seem worthy of continued support.

A data processing system which demonstrates facile documentation of CME activity was evaluated. This would appear to offer a concise, accurate, resume of such activity at a modicum of paperwork and cost to the individual practitioner.

Recommendations:

1. That the NMA House of Delegates reaffirm a continuing interest in continuing medical education and provision of continuing high quality medical care to Nebraskans.

2. That the effort of the CME committee is greatly appreciated and should continue with further stipulations:

a) That the committee continue its preparation of guidelines in the CME area for Nebraska physicians for consideration at the Spring Session, and

b) That guideline preparation be augmented by further effort to reach accurate assessment of what areas are of interest to the varied specialty and family practitioners, i.e. through survey, formal meetings, etc., and

c) That such guideline preparation proceed with great consideration and weight given to relevance and appropriateness to clinical circumstance throughout this state, and

d) That voluntary compliance with CME requirements are being met by a number of Nebraska physicians in varied fields of practice, and a benefit of relating CME to membership in NMA is questionable.

3. That despite the existence of enabling legislation and a sense of urgency expressed by some in fixing a CME position, that the interests of Nebraska's patients and physicians may better be served by thoughtful and methodical preparation to meet these goals.

4. That the NMA favorably consider utilization of central data processing in assimilation of CME and other NMA desired data at appropriate time.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF OUR REPORT. This was approved by the House.

MR. SPEAKER, I MOVE THE ADOPTION OF THIS SECTION OF YOUR REFERENCE COMMITTEE #5 AS A WHOLE. This was approved by the House.

Respectfully submitted,
Richard Cottingham, M.D., McCook, Chairman
E. G. Brillhart, M.D., Columbus
John E. Murphy, M.D., Aurora

The Chair recognized Dr. Dean who pointed out that according to federal regulations, physicians and hospitals are required to undergo utilization and review and are required to keep patient costs down. He said that however federal hospitals do not do the same sort of thing and referred specifically to VA hospitals, as the length of stay for VA hospitals is considerably longer than private hospitals. He recommended that this matter be referred to an appropriate committee for action and reported back at the Annual Session meeting. This motion was approved by the House.

The Chair recognized Dr. Cornelius who said that the AMA and other areas had suggested that medical societies establish a cost containment committee. He suggested that the Policy Committee consider constitution of such a committee and make a report at the next session of the House. The Chair ruled that this be done.

The Chair recognized Dr. Fitzgibbons who said he would like to see the House take a definite stand on the swine flu immunization program. He moved that the NMA go on record as supporting this program and that all members be urged to support the program and that physicians who administer this vaccine in their office to do so at no fee. This was seconded and discussion followed concerning the administration of the vaccine at no charge. Dr. Bosley moved that this motion be amended by deleting the reference to fees. This amendment was approved by the House, and the main motion was approved by the House as amended.

There being no further business, the House was adjourned.

The Nebraska Medical Journal

Volume 61
January 1976 — December 1976

FRANK COLE, M.D.
Editor

KENNETH NEFF
Business Manager

NORFOLK PRTG. CO., NORFOLK, NEBR.

Index to Volume 61

ORIGINAL ARTICLES

A

A Comparison of Hemodialysis and Transplantation in the Treatment of End-Stage Renal Failure Secondary to Diabetic Nephropathy ... 459
Acute Leukemia Presenting with Pericardial Involvement, Part I ... 163
Acute Leukemia Presenting with Pericardial Involvement, Part II ... 198
Addison's Disease in Children: A Case Report ... 342
Adrenergic Function, Agents Affecting, Part I ... 192
Adrenergic Function, Agents Affecting, Part II ... 227
Agents Affecting Adrenergic Function, Part I ... 192
Agents Affecting Adrenergic Function, Part II ... 227
Anemia Of Uremia, Management of, Use of Nandrolone ... 202
Aneurysm, Aortic and Ureteral Colic ... 427
Angina Pectoris Prophylaxis ... 7
Antihypertensive Therapy, Diuretics in ... 160
Antihypertensive Therapy, Propranolol in ... 287
Antihypertensive Therapy, Vasodilators in ... 327
Aortic Aneurysm, Ureteral Colic and ... 427
Are the "Fatties" Merely Gluttons? ... 294
Asymptomatic Obstructive Airway Defect, Part I ... 385
Asymptomatic Obstructive Airway Defect, Part II ... 423

B

Bed, Orthopedic ... 190
Behavior Therapy for Obesity, Part I ... 168
Behavior Therapy for Obesity, Part II ... 196
Behavior Therapy for Obesity, Part III ... 232
Behavior Therapy for Obesity, Part IV ... 289
Breast, Fibrous Disease of ... 105

C

Carbamazepine in Diabetes Insipidus ... 238
Children, Two-Year Old, Immunization Level Survey of — 1975 ... 335
Chloridorrhea, Congenital ... 223
Clinical Notes: Something Borrowed — Something Blue ... 464
Colic, Ureteral and Aortic Aneurysm ... 427
Colitis, Methotrexate Induced ... 84
Colonoscopic Polypectomy — Initial Experience, Part I ... 370
Colonoscopic Polypectomy — Initial Experience, Part II ... 445
Coma, Hepatic, Part II ... 13
Congenital Chloridorrhea ... 223
Congenital Heart Disease in the Neonate, Diagnosis of by Non-invasive Methods, Part I ... 305
Congenital Heart Disease in the Neonate, Diagnosis of by Non-invasive Methods, Part II ... 329
Cystadenoma, Mucinous in an Adolescent ... 58

D

Diabetes Insipidus, Carbamazepine in ... 238
Diabetic, Juvenile, Outpatient Initiation of Insulin Treatment in ... 297
Diabetic Neuropathy ... 218
Diagnosis and Treatment of Tuberculosis, New Concepts in, Part I ... 419
Diagnosis of Congenital Heart Disease in the Neonate by Non-invasive Methods, Part I ... 305
Diagnosis of Congenital Heart Disease in the Neonate by Non-Invasive Methods, Part II ... 329
Diuretics in Antihypertensive Therapy ... 160
Drugs Used to Manage Hypertension ... 112

E

Effective Use of Nandrolone Decanoate In the Management of the Anemia Of Uremia ... 202
Epilepsy, Temporal Lobe, Psychiatric Aspects of ... 301
Esophagus, Intramural Pseudodiverticulosis ... 9
Ethics Of Research ... 185
Exercise in the Patient With Ischemic Heart Disease ... 381
Exercise in Weight Reduction ... 158
Exteme Hyperglycemia Without Ketosis in an Insulin Dependent Diabetic ... 323

F

Factor XIII Deficiency: Report of a Case ... 80
Fibrous Disease of the Breast ... 105
Fifty Year Interview ... 189
Fifty Years in Medicine ... 345

G

Gentamicin Neurotoxicity ... 291
Giant Cavernous Hemangioma of the Liver: Case Report and Review of the Literature ... 407
Gravlee Jet Washer ... 119
Gross Anatomy, Undergraduate Grade Point Average, Science Grade Point Average, and Science Hours as Predicators of Medical, Physical Therapy and Physician's Assistant Students Performance in ... 452

H

Heart Disease, Ischemic, Exercise in ... 381
Hemangioma, Giant Cavernous of the Liver, Case Report and Review of the Literature ... 407
Hemodialysis and Transplantation in the Treatment of End-Stage Renal Failure Secondary to Diabetic Nephropathy, A Comparison of ... 459
Hepatic Coma, Part II ... 13
HL-AB27 Antigen in a Rheumatologic Practice, Significance of ... 154
HLA System in Paternity Exclusion ... 421
Hyperglycemia Extreme, Without Ketosis in an Insulin Dependent Diabetic ... 323
Hypertension, Drugs Used to Manage ... 112

I

Idiopathic Retroperitoneal Fibrosis, Unusual Case of 415
Immunization Level Survey of Two-Year Old Children — 1975 335
Insulin Treatment in the Juvenile Diabetic, Outpatient Initiation of 297
Intramural Pseudodiverticulosis of the Esophagus 9
Ischemic Heart Disease, Exercise in 381

L

Laminar Air Flow Facility — Analysis of One Year's Experience, The University of Nebraska Medical Center 441
Leukemia, Acute, Presenting with Pericardial Involvement, Part I 163
Leukemia, Acute, Presenting with Pericardial Involvement, Part II 198
Lymphomas, Medical Treatment of 53

M

Malpractice — What Is It?, Part I 339
Malpractice — What Is It?, Part II 374
Management of Tachyarrhythmias In The Emergency Room 44
MECO Experience 92
Medical Treatment of Lymphomas 53
Methotrexate Induced Colitis 84
Mucinous Cystadenoma in an Adolescent 58
My Fifty Years 91
My 50 Years of Medical Learning 19
My Practice 162

N

Nandrolone, Use of In the Management of Anemia Of Uremia 202
Nebraska Survey of Respiratory Therapy 115
Neonate, Diagnosis of Congenital Heart Disease in by Non-invasive Methods, Part I 305
Neuropathy, Diabetic 218
New Concepts in Diagnosis and Treatment of Tuberculosis, Part I 419
New Concepts in Diagnosis and Treatment of Tuberculosis, Part II 449
Nostalgia — 1975 55
Nutrition and Physical Fitness: Food Fads and Quackery, Part I 88
Nutrition and Physical Fitness: Food Fads and Quackery, Part II 122

O

Obesity, Behavior Therapy for, Part I 168
Obesity, Behavior Therapy for, Part II 196
Obesity, Behavior Therapy for, Part III 232
Obesity, Behavior Therapy for, Part IV 289
One-Fourth of the Bicentennial Years Devoted to Treating the Sick 237
Orthopedic Bed 190
"Osteosarcoma — A Light in the Gloom" 108
Outpatient Initiation of Insulin Treatment in the Juvenile Diabetic 297

P

Paternity Exclusion, HLA System in 421
Physician as a Nutrition Educator 230
Physician's Awareness and Attitudes Toward the Retarded, Part II 4
Physicians, Teachers and School Health Education 48
Polypectomy, Colonoscopic, Initial Experience, Part I 370
Post-Transfusion Purpura 413
Propranolol in Antihypertensive Therapy 287
Psychiatric Aspects of Temporal Lobe Epilepsy 301

R

Reduction, Weight, Exercise in 158
Respiratory Therapy, Nebraska Survey of 115
Retarded, Physician's Awareness 4
Retrograde Transverse Sinus Radionuclide Venogram: A Case Report 378
Retroperitoneal Fibrosis, Idiopathic, Unusual Case of 415

S

Sideroblastic Anemias 389
Significance of the HL-AB27 Antigen in a Rheumatologic Practice 154
Silver Anniversary 16
Student Research Day, November 11, 1975; Abstracts 364
Summary of State of Nebraska Tuberculosis Program 458

T

Tachyarrhythmias, Management of In the Emergency Room 44
Temporal Lobe Epilepsy, Psychiatric Aspects of 301
Tuberculosis, New Concepts in Diagnosis and Treatment of, Part I 419

U

Undergraduate Grade Point Average, Science Grade Point Average, and Science Hours as Predicators of Medical, Physical Therapy and Physician's Assistant Students Performance in Gross Anatomy 452
University of Nebraska Medical Center Laminar Air Flow Facility — Analysis of One Year's Experience, The 441
Unusual Case of Idiopathic Retroperitoneal Fibrosis 415
Ureteral Colic and Aortic Aneurysm 427

V

Vasodilators in Antihypertensive Therapy 327

W

Washer, Gravlee Jet 119
Weight Reduction, Exercise in 158

AUTHORS

Aita, John F. 378
Ament, Marvin E. 223
Armitage, James O. 163, 198, 202, 389

Badakhsh, Shahrokh 415
Banta, Larry E. 364
Barak, Anthony J. 13
Bleicher, Jerome 464
Bolam, David L. 223
Bregman, Richard 80
Brouillette, R. F. 58
Brown, James R. 7
Bruttig, Stephen P. 364
Burgher, Louis W. 419, 449

Catania, Nancy 345
Cegielski, M. 464
Chappell, T. R. 323
Click, Roger 364
Connolly, John F. 108
Cooley, David A. 154
Crofoot, Michael 16

Dalske, H. Frederick 112, 160, 192, 227, 287, 327
Davis, J. C. 441
Davis, Richard B. 80, 413, 441
Dettman, P. 441
Dvorak, Allen D. 9
Dyke, David R. 370, 445
Dzindzio, Barry S. 44

Faithe, Rose Fidelis 339, 374
Feagler, John R. 53, 163, 198
Fee, Bruce E. 9
Field, Charles A. 119
Fischer, Jerry L. 364
Fitzgibbons, John F. 105
Forker, Alan D. 44, 305, 329
Foster, Malcolm T., Jr. 389
Fox, Hazel M. 230
Fritz, J. 441
Fuenning, Samuel I. 48

Gibbs, Gordon E. 297
Goldsmith, Dale P. J. 294
Gould, R. N. 364

Hartford, James T. 301
Hayes, O. R. 370, 445
Hickstein, Dennis D. 92
Hofschire, Philip J. 305, 329
Holsinger, J. W. 381
Horn, Harold R. 190
Hursh, L. M. 158

Jacobs, Linda 370, 445
Jensen, Richard H. 452
Jones, Jerry W. 119

Karrer, F. William 407
Kass, Irving 385, 423
Kass, Mark D. 385, 423
Kelly, N. Karen 4
Kessinger, Anne 84
Kingsley, D. W., Sr. 162
Kircsfeld, Barry 291
Krause, Tama O. 230
Krueger, Steven 413

Larsen, Arden E. 421
Larsen, Arthur L. 421
Lavia, Lynn A. 364
Leighton, Mary 202
Lewis, Jack K. 407
Lim, Thomas P. K. 115
Linton, Randall L. 92, 364
Lipscomb, Helen L. 364
Lohse, James R. 389
Lovrien, Fred 218

Maragos, George D. 342
Martin, Gary L. 48
McCurdy, Fred A. 364
McReynolds, William T. 168, 196, 232, 289
Mehdj, M. 342
Menolascino, Frank J. 4
Metcalf, William K. 452
Miscia, V. F. 381
Moor, Burdette J. 407
Mooring, Paul K. 305, 329
Morgan, James 44

Nelson, Ralph A. 88, 122
Newman, Ian M. 48
Northwall, William H. 427
Novak, Russell A. 84, 419, 449
Novak, W. F. 237

O'Leary, D. J. 105

Pack, William R. 335
Passer, Jeffrey 459
Patil, Kashinath D. 385, 423
Pearse, Warren H. 185
Peterson, E. 441
Pratt, Peyton T. 80
Prentice, Ernest D. 452

Quaife, M. 441

Rapoport, Joseph M. 119
Rauschenberg, L. 441
Rosenlof, R. C. 323
Rubin, Herbert 385, 423

Saporta, Jose 464
Schreiner, Gilbert C. 80
Seiler, R. C. 58
Shah-Fang Cho, Elizabeth 364
Sharp, John G. 452
Shipp, Joseph C. 218, 323
Sisson, Joseph A. 415
Sloan, Jane T. 55
Smith, Henry D. 335, 458
Sorrell, Michael F. 13
Steenburg, Richard 459
Stitcher, Joseph E. 370, 445
Stoesz, Paul A. 335
Stone, Daniel B. 459
Sweet, Charles 415

Tennant, H. S. 91
Thomas, S. R. 58
Tiwary, Chandra M. 238

Vacalis, T. Demetri 48
Van Camp, Roscoe O. 364
Vanderhoof, Jon A. 223

Waite, C. P. 189
Wald, Steven L. 407
Ware, Frederick 202, 291, 459
Weaver, Arthur L. 154
Wengert, James W. 301
Williams Charles R. 19
Wolfe, Gerald L. 112, 160, 192, 227, 287, 327

Yost, John G. 108

EDITORIALS

Acronyms and References 322
An Editorial Medley 103
The Annual Session 183
The Art of Medicine 285
Bigger Is Not As Big 217
Bookends 285
Don't Be Technical 321
Don't Call It The Emergency Room 78
Eight To Ten Is Nine 41
The Government And The Doctor 285
Has Evolution Stopped? 183
How Do You Plead? 151
How To Look Like A Doctor 184
I Just Think So 1
I Told You So 405
In Conclusion 439
Intensive Care 361
It's Singular, But It's Not Pleural 321
It's Time 362
Keep It Short 361
The Moving Finger 440
My Own Disease 152
The New Doctors 405
No Change 215
No Two Cases Are Alike 405
Nobody Lives Forever 439
Not Out Of His Own Mouth 286
Not That We Die 3
Notes On Smoking 440
On Big Words 42
On Malpractice 184
On Obscenity 2
On Patients, Immortality, and Transplants 79
On Psychology 184
On The Average 1
On Training 152
On Writing Articles So You Can Read Them 42
One Doctor Calling Another 322
Our Friends The Plants 104
Our Time Sense 321
Pearls of Wisdom 215
The Specialist 104
The Stethoscope 362
Student Research Day 41
Surgical Instruments 286
Thoughts On Malpractice 215
To Get A Billion People 216
Two Diseases At The Same Time 216
The Undecided 439
The Usual Childhood Diseases 77
What Is It? 103
What Is So Rare As A Day In November? 406
Where Are They Now? 151
Who Should Write The Article? 405
Why Babies Get Born 77
Why Does The Wrist Have So Many Names? 152
The Will To Fail 2
Will You Die If You Think You Will? 77
Will You Get Thin If You Walk? 361

FEATURES

Auxiliary 24, 64, 95, 127, 173, 209, 246, 310, 350, 395, 432, 467
Between Cases 28, 66, 97, 128, 177, 211, 251, 312, 351, 397, 434, 468
Books 96, 127, 174, 210, 260, 319, 358, 402, 438, 473
Books Received 31
Coming Meetings 37, 76, 102, 136, 19A, 15-A, 258, 318, 357, 400, 437, 472
Dean's Corner 178
Down Memory Lane 40, 72, 99, 131, 178, 214, 243, 307, 347, 393, 430, 465
I Remember — Be Sure It's The Right Leg 74
I Remember — How We Listened to Dr. Adler 135
I Remember — On Epiglottitis 101
I Remember — The Stopped Heart 36
I Remember — Three Transfusions 182
In Memoriam 30, 67, 175, 211, 250, 311, 351, 396
It's New 19A
Letter Box 31, 74, 102, 135, 182, 15-A, 259, 319, 358, 433, 473
Medical Schools (Our) 30, 69, 98, 129, 8A, 208, 254, 315, 354, 398, 434
Medicinews 25, 8A, 131, 261, 320, 359, 403, 438
Organizations, National 10A, 10A, 14A, 10A, 9A, 8A, 6A, 6A, 10A, 8A, 11A, 10A
Organizations, State 14A, 22A, 16A, 18A, 9A, 10A, 7A, 8A, 12A, 14A, 14A
Picture Gallery 32, 70, 253, 314, 353, 469
Presidential Address 247
President's Page 22, 62, 94, 125, 172, 207, 244, 308, 348, 394, 431, 466
Program, 51st Annual Session of the NMA Auxiliary 148
Program, 108th Annual Session 137
Reports, Board of Councilors 274, 275, 495
Reports, Committees 267, 268, 269, 270, 271, 272, 273, 274, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495
Reports, Delegates to AMA 264, 265, 266, 267, 475, 476
Reports, House of Delegates 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 19-A, 496, 497, 498, 499, 500, 501, 502, 503, 504
Report, Nebraska Medical Foundation, Inc. 267
Reports, Officers 262, 263, 264, 474, 475, 476
WashingtoNotes 38, 72, 100, 132, 179, 255, 316, 355, 399, 435, 470

Welcome New Members 28, 68, 99, 130, 214, 245, 309, 349, 435, 470

ADVERTISERS' INDEX

B

Beltone Electronics Corp. ... 5
Burroughs Wellcome Co. ... 9

D

Donley Medical Supply Co. ... 21

H

Hoechst-Roussel Pharmaceuticals, Inc. ... 11, 12, 13, 14, 472A, 472B

J

Jim's Drug ... 6

L

Eli Lilly and Company ... 22

M

Medical Protective Company (The) ... 6

N

Norfolk Printing Co., Inc. ... 21

P

Pharmaceutical Manufacturers Association ... 18 & 19

R

A. H. Robins Company ... 7 & 8
Roche Laboratories ... 2, 3, 25, 26, 464B, 464C, 464D
Roerig & Company ... 17

S

Smith Kline and French Laboratories ... 464A

U

Uniform World Inc. ... 15
United States Navy, Recruiting District, Omaha ... 21

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PHYSICIAN NEEDED — A physician is needed to practice in the Nebraska Penal and Correctional Complex hospital and clinic. Located in Lincoln, Nebraska, a clean, progressive community with an excellent school system and colleges. Contact Gary Burger, Personnel Director, Department of Correctional Services, Box 94661, Lincoln, Nebraska 68509.

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ASSOCIATE DIRECTOR FOR FAMILY PRACTICE RESIDENCY PROGRAM — Newly-developed Family Practice Residency Program serving Waterloo-Cedar Falls area needs Associate Director to start February, 1977. Position involves teaching and supervision of Residents plus direct patient care. New 7,000 sq. ft. model office. Program is affiliated with the University of Iowa College of Medicine and offers an opportunity for a more relaxed practice of medicine plus academic advantages. Adequate salary plus fringe benefits equal to 20% of base salary. Ample vacation and opportunity for postgraduate study. Contact: Charles A. Waterbury, M.D., Program Director, 635 Black's Building, Waterloo, Iowa 50703.

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HEALTH MAINTENANCE ORGANIZATION MEDICAL DIRECTOR: Community Health Care Assn., Inc., Lincoln, a non-profit corporation, has completed a positive HMO feasibility study and is beginning detailed HMO planning. We are seeking a physician qualified to pull together the interested physicians and other providers to develop and implement the HMO health care delivery system. Envisioned is a group practice staff model HMO. Must be knowledgeable about primary care practice and administration and be an effective communicator. Starting annual full-time salary range $35-48,000 depending on experience and education. Negotiable part-time or full-time during the phase; definitely full-time later. Send resume to Steve Tiwald, Exec. Director, Community Health Care Association, Inc., 615 Anderson Bldg., Lincoln, NE 68508 by Dec. 15, 1976. Telephone 402/474-1584. Equal Opportunity Employer.

[Inclusion of the above ad does not indicate approval of the HMO concept by the Nebraska Medical Association. The Lancaster County Medical Society is on record opposing the establishment of an HMO in Lancaster County by Community Health Care Association, Inc. on the basis that the need for an HMO has not been established . . . Editor]

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Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.
Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.
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